



WEST DAVIS
CORRIDOR

Development and Evaluation of the Shared Solution Alternative

in support of the
Environmental Impact Statement

West Davis Corridor Project

Federal Highway Administration
Utah Department of Transportation

in cooperation with

U.S. Army Corps of Engineers
U.S. Environmental Protection Agency
U.S. Fish and Wildlife Service
Utah Reclamation, Mitigation, and Conservation Commission



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Prepared by
HDR Engineering, Inc.
3949 South 700 East, Suite 500
Salt Lake City, UT 84107

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Contents

1.0	INTRODUCTION	5
2.0	ALTERNATIVE-DEVELOPMENT WORKSHOPS.....	6
2.1	Workshop 1: Shared Solution Workshop	6
2.2	Interim Correspondence between Workshop 1 and Workshop 2	6
2.3	Workshop 2: Roadway Components of the Shared Solution Alternative.....	7
2.3.1	Workshop 2A: Small-Group Workshop 1.....	8
2.3.2	Interim Correspondence before Small-Group Workshop 2.....	9
2.3.3	Workshop 2B: Small-Group Workshop 2.....	9
2.3.4	Interim Correspondence before Workshop 3	10
2.4	Workshop 3: Transit Components of the Shared Solution Alternative	10
2.4.1	Workshop 3A: Small-Group Workshop 3.....	12
2.4.2	Workshop 3B: Small-Group Workshop 4.....	13
2.4.3	Workshop 3C: Small-Group Workshop 5.....	14
2.5	Workshop 4: Land-Use Components of the Shared Solution Alternative	15
2.5.1	Workshop 4A: Small-Group Workshop 6.....	18
2.5.2	Workshop 4B: Small-Group Workshop 7.....	19
2.6	Workshop 5: Presentation of the Shared Solution Alternative	20
2.6.1	Workshop 5A: Small-Group Workshop 8.....	21
2.6.2	Workshop 5B: Small-Group Workshop 9.....	23
2.6.3	Workshop 5C: Small-Group Workshop 10.....	25
2.6.4	Workshop 5D: Small-Group Workshop 11.....	26
2.6.5	Workshop 5E: Small-Group Workshop 12.....	28
2.6.6	Workshop 5F: Small-Group Workshop 13	30
2.6.7	Workshop 5G: Small-Group Workshop 14.....	31
2.6.8	Workshop 5H: Small-Group Workshop 15.....	33
2.6.9	Review and Approval of Shared Solution Land-Use Data by WFRC	34
2.6.10	Workshop 5I: Small-Group Workshop 16	34
2.6.11	Workshop 5J: Small-Group Workshop 17	35
2.7	Workshop 6: Preliminary Level 1 Screening Results for the Shared Solution Alternative	37
2.7.1	Workshop 6A: Small-Group Workshop 18.....	40
3.0	ALTERNATIVE-REFINEMENT PROCESS FOR THE DRAFT SHARED SOLUTION ALTERNATIVE	42
3.1	Alternative-Refinement Internal Meetings.....	42
3.1.1	Alternative-Refinement Meeting 1, Small-Group Workshop 19	42
3.1.2	Alternative-Refinement Meeting 2, Small-Group Workshop 21	44
3.1.3	Alternative-Refinement Meeting 3, Small-Group Workshop 22	45
3.1.4	Alternative-Refinement Meeting 4, Small-Group Workshop 23	47
3.1.5	UTA Shared Solution Transit Proposals Meeting.....	50
3.2	City Land-Use Meetings	52
3.2.1	Syracuse City Staff Meeting	52
3.2.2	Syracuse City Joint Planning Commission and City Council Work Session	55
3.2.3	Kaysville City Staff Meeting	56

3.2.4	Layton City Staff Meeting	58
3.2.5	Layton City Council Meeting.....	60
3.2.6	Sunset City Staff Meeting.....	61
3.2.7	Clearfield City Staff Meeting.....	63
3.2.8	Farmington City Staff Meeting	66
3.2.9	Clinton City Staff Meeting.....	68
3.2.10	West Point City Staff Meeting	71
3.2.11	West Haven City Staff Meeting	73
3.2.12	Roy City Staff Meeting	75
3.2.13	Hooper City Staff Meeting.....	77
3.2.14	Clearfield City Planning Commission Work Session	79
3.2.15	Hooper City Council Meeting.....	80
3.2.16	Results of the City Land-Use Meetings	82
3.3	Market-Based Evaluation of Shared Solution Alternative Land-Use Plan.....	84
3.3.1	RCLCO Teleconference to Discuss Market Analysis and Methodology	84
3.3.2	RCLCO Teleconference to Discuss Draft Results of Market Analysis.....	85
3.4	Refinement of the Shared Solution Alternative.....	88
3.4.1	Meeting to Discuss Updated Modeling Assumptions Based on Feedback from Cities and UTA	88
3.4.2	Follow-up Meeting to Discuss Updated Modeling Assumptions.....	91
3.4.3	First Update Meeting with the Shared Solution Coalition	93
3.4.4	Second Update Meeting with the Shared Solution Coalition	95
3.4.5	Third Update Meeting with the Shared Solution Coalition.....	97
4.0	LEVEL 1 SCREENING FOR THE REFINED SHARED SOLUTION ALTERNATIVE.....	100
4.1	Methodology	102
4.1.1	Alternative Assumptions.....	102
4.1.2	Land-Use Assumptions	102
4.1.3	Modeling Assumptions	102
4.2	Level 1 Screening Criteria.....	103
4.2.1	Reduce Delay and Congestion in the Study Area	104
4.2.2	Provide Adequate Capacity.....	105
4.3	Level 1 Screening Results	106
5.0	PROCESS SUMMARY FOR THE SHARED SOLUTION ALTERNATIVE	109
5.1	Alternative Development	109
5.2	Alternative Refinement	109
5.3	Alternative Evaluation.....	110

Tables

Table 1. Members of the Shared Solution Coalition.....	5
Table 2. Shared Solution Innovated Intersections	48
Table 3. City Responses to Shared Solution Alternative Land-Use Proposals	83
Table 4. Level 1 Screening Criteria for the Preliminary Alternatives	103
Table 5. Numerical Results from Level 1 Screening.....	107

Figures

Figure 1. Shared Solution Alternative	101
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Appendices

Appendix A. Memorandum of Agreement
Appendix B. Workshop 1
Appendix C. Workshop 2 – Roadway
Appendix D. Workshop 3 – Transit
Appendix E. Workshop 4 – Land Use
Appendix F. Workshop 5 – Draft Shared Solution Alternative
Appendix G. Preliminary Shared Solution Land-Use and Modeling Information
Appendix H. Workshop 6 – Preliminary Shared Solution Alternative Modeling Results
Appendix I. City and UTA Response Letters
Appendix J. Final Shared Solution Alternative Assumptions and Map
Appendix K. RCLCo Report
Appendix L. City Land Use Packets

Glossary

AADT	average annual daily traffic
AWDT	average workday daily traffic
CMAQ	Congestion Mitigation and Air Quality Improvement
Coalition	Shared Solution Coalition
D&RGW	Denver & Rio Grande Western Railroad
EB	eastbound
EIS	Environmental Impact Statement
I-15	Interstate 15
LOS	level of service
MOA	Memorandum of Agreement
MOE	measure of effectiveness
mph	miles per hour
NB	northbound
NE	northeast
NEPA	National Environmental Policy Act
NW	northwest
REMM	Real Estate Market Modeling
RTP	Regional Transportation Plan
SB	southbound
SE	southeast
SFR	single-family residential
SR	State Route
STP	State Transportation Plan
SW	southwest
TAZ	traffic analysis zone
TM	Technical Memorandum
UBET	Utahns for Better Transportation
UDOT	Utah Department of Transportation
UTA	Utah Transit Authority
V/C	volume to capacity
VHT	vehicle-hours traveled
VMT	vehicle-miles traveled
vphpl	vehicles per hour per lane
WB	westbound
WDC	West Davis Corridor
WFRC	Wasatch Front Regional Council

1.0 Introduction

This technical memorandum documents the development and evaluation of the Shared Solution Alternative for the West Davis Corridor (WDC) Project in Weber and Davis Counties, Utah.

A formal request to develop the Shared Solution Alternative was received by the Utah Department of Transportation (UDOT) from the Shared Solution Coalition (Coalition) on April 17, 2013 just before the release of the WDC Draft Environmental Impact Statement (EIS) for the project. The WDC Draft EIS was approved on May 1, 2013 and released for public review on May 24, 2013. The request included general concepts but didn't provide enough detail to evaluate the Shared Solution as an alternative in the EIS. Therefore, UDOT, in collaboration with the Coalition, undertook a process to develop the alternative in enough detail so that it could conduct a screening evaluation for the alternative consistent with the evaluation performed for the other WDC alternatives. Table 1 lists the organizations that make up the Coalition.

Table 1. Members of the Shared Solution Coalition

Utahns for Better Transportation	Utah Chapter of the Sierra Club	Friends of the Great Salt Lake	Breathe Utah
National Audubon Society	Utah Audubon Council	Utah Physicians for a Healthy Environment	Utah Waterfowl Association
Wasatch Clean Air Coalition	Utah Rivers Council	Western Wildlife Conservancy	Utah Airboat Association
Utah Mud Motor Association	Clean Air Now!	The Nature Conservancy of Utah	Citizens for a Better Syracuse
Great Salt Lake Audubon	Utah Birders	SaveFarmington.org	Governor, We Can't Breathe
Attorneys For Clean Air & Environment (AFCAIRE)			

The Shared Solution Alternative was developed and evaluated based on a Memorandum of Agreement (MOA) signed by UDOT and the Coalition on May 15, 2014. A copy of the MOA and the Shared Solution Alternative request are included in Appendix A, Memorandum of Agreement.

The purposes of the MOA were to define the process that would be used to develop and evaluate the Shared Solution Alternative, agree on the criteria that would be used to develop and evaluate the alternative, and ensure that the stakeholders involved in the process understood the steps that would be followed. As defined in the MOA and described below, the process included holding a series of workshops with stakeholders to develop the Shared Solution Alternative followed by analyzing the developed alternative to determine whether the Shared Solution Alternative would meet the purpose of and need for the WDC Project as defined in the project's Draft EIS.

The process described in this technical memorandum took place between May 2014 and May 2016.

2.0 Alternative-Development Workshops

This section documents the workshops and meetings that were held to develop the Shared Solution Alternative. Details about the date, time, location, attendees, topics discussed, and action items are summarized for each workshop and meeting.

2.1 Workshop 1: Shared Solution Workshop

Date: June 18, 2014

Time: 12:30 PM to 4:30 PM

Location: West Point, Utah

Agenda: The agenda is included in Appendix B, Workshop 1.

Attendees: The list of attendees is included in Appendix B. Attendees included representatives from UDOT, the Coalition, the Utah Transit Authority (UTA), the Wasatch Front Regional Council (WFRC), and local Cities and Counties.

Meeting Summary

In this workshop, UDOT provided an overview of the EIS process and reviewed the comments that had been provided by the Coalition on the WDC Draft EIS. The Coalition representatives provided a summary of Shared Solution ideas and noted that the workshops were part of the MOA and were intended to define the specific roadway, transit, and land-use elements of the Shared Solution Alternative.

Following the overview presentations, the meeting attendees went into facilitated breakout groups to identify roadway, transit, and land-use ideas that could potentially be part of the Shared Solution Alternative. After the breakout sessions, the group reconvened, and the facilitators provided a summary of the ideas identified at the breakout sessions.

Action Items

Following the meeting, the results of the breakout groups were summarized and shared with the Coalition representatives and all attendees of the meeting (see Appendix B).

2.2 Interim Correspondence between Workshop 1 and Workshop 2

After Workshop 1, the WDC team prepared tables and lists of the roadway, transit, and land-use ideas or concepts that had been identified during the workshop.

The WDC team provided these initial lists to Roger Borgenicht and Mike Brown of the Coalition on June 24, 2014, and a numbered list of roadway ideas on June 25, 2014 (see Appendix B, Workshop 1). Mike Brown provided some comments in an email sent on June 25, 2014, and Roger Borgenicht provided comments and additions to the

What is the WDC team?

The WDC team consists of the Federal Highway Administration (FHWA), the Utah Department of Transportation (UDOT), and the project consultants.

numbered list on June 27, 2014. This file contained seven general roadway concepts and 46 roadway projects (see Appendix B).

On July 1, 2014, Roger Borgenicht sent an email that included an abridged list of eight general concepts, seven roadway issues, and two candidates for arterial/intersection improvements (subdivided into east-west and north-south projects) that the Coalition had selected from the larger June 18, 2014, list. The Coalition's list of roadway concepts was put into a table and added to the agenda for Workshop 2 (see Appendix C, Workshop 2 – Roadway).

2.3 Workshop 2: Roadway Components of the Shared Solution Alternative

Date: July 2, 2014

Time: 8:00 AM to 12:00 PM

Location: Sunset, Utah

Agenda: The agenda is included in Appendix C, Workshop 2 – Roadway.

Attendees: The list of attendees is included in Appendix C. Attendees included representatives from UDOT, the Coalition, UTA, WFRC, and local Cities and Counties.

Meeting Summary

In this workshop, UDOT provided a brief recap of Workshop 1 and described the purpose of Workshop 2. The Coalition representatives (Roger Borgenicht and Mike Brown) then presented information that described the design features and benefits of various roadway concepts, including boulevards, innovative intersections, and improvements to Interstate 15 (I-15).

Following the overview presentations, the meeting attendees went into facilitated breakout groups to identify specific roadway project ideas that could potentially be part of the Shared Solution Alternative. After the breakout sessions, the group reconvened, and the facilitators provided a summary of the ideas identified at the breakout sessions.

Meeting Summary

Action Items

Following the meeting, the results of the breakout groups were summarized and shared with the Coalition representatives and all attendees of the meeting (see Appendix C). UDOT also scheduled a follow-up roadway workshop with the Coalition for July 8, 2014.

2.3.1 Workshop 2A: Small-Group Workshop 1

Date: July 8, 2014

Time: 2:00 PM to 5:00 PM

Location: Avenue Consultants, West Jordan, Utah

Agenda: Define and refine the list of roadway improvements identified in Workshop 2.

Attendees: Representatives from UDOT and the Coalition attended this meeting. Attendees were Don Lever (Shared Solution Coalition), Renae Widdison (Shared Solution Coalition), Ivan Hooper (Avenue Consultants), Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Eric Rasband (UDOT), Roger Borgenicht (Utahns for Better Transportation [UBET]/Shared Solution Coalition), Mike Seely (Horrocks Engineers), Jayson Cluff (Horrocks Engineers), Mike Brown (Metro Analytics/Shared Solution Coalition), and David Thompson (Avenue Consultants).

Meeting Summary

At the beginning of the meeting, a table that summarized all of the roadway improvements identified in Workshop 2 was distributed to the group (see Appendix C, Workshop 2 – Roadway). During the meeting, the group used this table to discuss potential locations for boulevards, innovative intersections, I-15 improvements, and I-15 crossings that would improve mobility.

Roger Borgenicht began the meeting by emphasizing some themes that had come up during the previous two workshops, specifically the need for network improvements and multifunctional/multimodal transportation facilities. Mike Brown also used Google Earth and other planning software to show locations and concepts for the roadway improvements. Mike and Roger said that the larger list of potential projects that came out of Workshop 2 would need to be pared down and focused on the projects that provided the best transportation benefit.

During the meeting, the group discussed various roadway projects and ended without getting through everything in the tables. The group decided to hold a second small-group workshop on July 22, 2014, to continue the discussion. The Coalition also requested some more-detailed information about the current and predicted average annual daily traffic (AADT) on the roads in the WDC study area, which UDOT agreed to provide prior to the next small-group workshop. The Coalition also agreed to continue to work on narrowing the list of roadway projects before the July 22, 2014, meeting.

What is the WDC study area?

The WDC study area is the area bounded on the north by 3000 South in Hooper and West Haven, on the south by about Parrish Lane in Centerville, on the west just east of the Great Salt Lake, and on the east by I-15.

Action Items

The WDC team updated the status of the projects discussed at the July 8, 2014, meeting in a table (see Appendix C). Following the meeting, an updated table and list of roadway projects with 2012 AADT and 2040 No-Build average workday daily traffic (AWDT; see Appendix C) was distributed to the group via an email on July 15, 2014. The Coalition agreed to review the list and try to further identify or prioritize a list of candidate boulevards, innovative intersections, and other roadway improvements for the Shared Solution Alternative.

2.3.2 Interim Correspondence before Small-Group Workshop 2

On July 10, 2014, Randy Jefferies of UDOT sent Roger Borgenicht a Google Earth kmz file with the 2012 AADT for roads in Utah. Randy sent this information based on a request Roger and Mike Brown had made at the July 8, 2014, meeting to have more information about the current AADT on the roads in the WDC study area.

The WDC team sent a copy of the table of roadway projects with 2012 AADTs and 2040 AADTs to the Coalition on July 15, 2014.

2.3.3 Workshop 2B: Small-Group Workshop 2

Date: July 22, 2014

Time: 9:00 AM to 12:00 PM

Location: HDR, Salt Lake City, Utah

Agenda: There was no formal agenda for this meeting. This was the second small-group follow-up meeting from the roadway workshop (Workshop 1). The purpose of the meeting was to further refine and identify the roadway improvements that would be part of the Shared Solution Alternative.

Attendees: Representatives from UDOT and the Coalition attended this meeting. Attendees were Don Lever (Shared Solution Coalition), Renae Widdison (Shared Solution Coalition), Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Roger Borgenicht (UBET/Shared Solution Coalition), Mike Seely (Horrocks Engineers), Mike Brown (Metro Analytics/Shared Solution Coalition), and David Thompson (Avenue Consultants).

Meeting Summary

During this meeting, Mike Brown and Roger Borgenicht discussed the 12 primary roadway concepts that were being considered for the Shared Solution Alternative. The group discussed these concepts and projects to clarify some of the assumptions for each concept.

The main 12 concepts discussed at the meeting were:

1. Antelope Drive improvements, with a focus on improving operations near I-15
2. State Route (SR) 193 improvements, with a focus on improving truck transportation to Freeport Center
3. I-15 preventative ramp metering (from Bountiful to Ogden)
4. I-15 frontage roads from the Hill Field Road exit to the 700 South/SR 193 exit
5. Interchange and intersection improvements at I-15/5600 South/SR 126 in Roy
6. Interchange and intersection improvements at I-15/650 North/SR 126 in Clearfield (300 North/800 North)
7. SR 126 boulevard and innovative intersection (for example, ellipse or bowtie) improvements
8. Layton Station – quadrant innovative intersection improvements by Gentile Street and SR 126
9. SR 108 – various innovative intersection locations (1800 North, Antelope Drive, etc.)
10. I-15 overpasses (Layton 1450 North, 300 North/800 North area)

11. Local grid improvements (west Layton, West Point, Clearfield, Layton, and Kaysville)

- a. New collector links
- b. Improved intersections on smaller facilities
- c. New or improved separate bicycle and pedestrian facilities

12. Bluff Road – minor improvements to three-lane cross-section and intersection improvements at Gentile Street (for example, roundabout)

Action Items

The Coalition agreed to take the list of 12 concepts discussed at the meeting and to finalize the concepts in a table that clarified project limits, facility types, target speeds, and other design features for the Shared Solution Alternative roadway improvements.

Once UDOT and the WDC team received this list, they agreed to work with the Coalition to finalize the list of roadway improvements for traffic modeling.

2.3.4 Interim Correspondence before Workshop 3

On July 11, 2014, Roger Borgenicht sent an email with an abridged list of five transit suggestions/recommendations for the Shared Solution Alternative to be used for the July 28, 2014, meeting.

The WDC team distributed the Shared Solution Coalition's list of five transit suggestions/recommendations (see Appendix D, Workshop 3 – Transit) and the full list of 40 transit items identified at the June 18, 2014, workshop via email on July 11, 2014 (see Appendix B, Workshop 1).

2.4 Workshop 3: Transit Components of the Shared Solution Alternative

Date: July 28, 2014

Time: 9:30 AM to 12:00 PM

Location: Clearfield, Utah

Agenda: The agenda is included in Appendix D, Workshop 3 – Transit.

Attendees: The list of attendees is included in Appendix D. Attendees included representatives from UDOT, the Shared Solution Coalition, UTA, WFRC, and local Cities and Counties.

Meeting Summary

This meeting focused on potential transit projects that could be part of the Shared Solution Alternative. After introductions, Roger Borgenicht listed six goals for transit for the Shared Solution Alternative:

- 1. An integrated transit system
- 2. Well-placed transit stations
- 3. Appropriate vehicle/mode types
- 4. Appropriate frequency and timing of connections

5. Cost/fare considerations – lower is better

6. How to make suburban transit more feasible?

After Roger’s introduction, Mike Brown presented some additional details on transit projects using a Microsoft PowerPoint presentation and Google Earth. Mike identified projects that included, but were not limited to, the following projects:

- FrontRunner improvements (fare reductions, more stops, and increased headways)
- Expansion of UTA bus route 470 from Salt Lake City to Hill Air Force Base to Ogden (on SR 126/Main Street/State Street)
- Antelope Drive east-west circulator route that combines with the Layton circulator route
- Bikeways on separate facilities
- New bus circulators on east-west arterials

Following Mike Brown’s presentation, the group discussed the concepts, with UTA and WFRC providing comments about whether some of the improvements were already assumed in or planned to be included in WFRC’s Regional Transportation Plan (RTP). The group also discussed some potential issues with implementing some of the ideas.

The group went through the list of five transit categories (improve existing transit infrastructure and service; provide new transit infrastructure and service; understand user needs and opportunities for improving ridership; encourage or incentive transit use; and plan for future transit options) provided by the Coalition but didn’t get all the way through the list during the meeting because of time limitations. UDOT agreed to hold a follow-up meeting with the Coalition and UTA to further refine and detail the transit components of the Shared Solution Alternative.

Minutes from this workshop are included in Appendix D of this technical memorandum.

Action Items

At the conclusion of the meeting, UDOT agreed to have a follow-up meeting with UTA and the Coalition to refine and provide a final, detailed list of transit improvements that would be part of the Shared Solution Alternative.

What is the Wasatch Front Regional Council (WFRC)?

WFRC is the designated metropolitan planning organization that works in partnership with UDOT, city and county governments, and other stakeholders to develop the Regional Transportation Plan for the Wasatch Front Urban Area.

2.4.1 Workshop 3A: Small-Group Workshop 3

Date: August 5, 2014

Time: 1:00 PM to 4:30 PM

Location: Avenue Consultants, West Jordan, Utah

Agenda: There was no formal agenda for this meeting. This was the third small-group follow-up meeting. The purpose of the meeting was to further refine and identify the roadway improvements and transit improvements that would be part of the Shared Solution Alternative.

Attendees: Attendees were Don Lever (Shared Solution Coalition), Ivan Hooper (Avenue Consultants), Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Roger Borgenicht (UBET/Shared Solution Coalition), Mike Seely (Horrocks Engineers), Jayson Cluff (Horrocks Engineers), Mike Brown (Shared Solution Coalition), and David Thompson (Avenue Consultants).

Meeting Summary

During this meeting, the Coalition representatives (Mike Brown, Roger Borgenicht, and Don Lever) provided draft versions of maps and lists of roadway projects that the group discussed. The group discussed these concepts and projects to clarify some of the assumptions for each of the concepts.

The main roadway concepts discussed at the meeting were:

1. SR 126 boulevard
2. SR 108 boulevard
3. Antelope Drive boulevard
4. 1800 North (SR 37) boulevard
5. 5600 South/5500 South (SR 97) boulevard
6. Layton Parkway expressway
7. SR 193 expressway
8. Bluff Road parkway
9. Nodes at locations primarily along SR 126, Antelope Drive, and SR 108
10. I-15 ramp metering
11. I-15 frontage roads between Hill Field Road and 800 North
12. Breezeways for trucks on SR 193 to get under SR 126
13. I-15 overpasses at 800 North, 300 North, and 1000 South in Clearfield (between the 700 South and Antelope Drive interchanges)

The group also discussed the preliminary list of transit improvements that were identified at the July 28, 2014, transit workshop. The group discussed the transit improvements and identified the following projects as the most likely projects to include as part of the Shared Solution Alternative:

1. FrontRunner improvements (fare reductions, more stations, increased headway times, and increased capacity)
2. Expansion or enhancement of UTA bus route 470 on SR 126
3. Enhancement of SR 108 bus route
4. Antelope Drive east-west circulator bus route
5. New bus circulators in western Davis and Weber Counties
6. New connections for buses, bicycles, and pedestrians at the Clearfield FrontRunner station
7. Separate bicycle facilities
8. Queue-jumping buses or peak-hour dedicated bus lanes
9. More or improved intermodal centers
10. UTA fare policy changes (distance based fares, peak vs. off-peak fares, free fares on air quality alert days, and/or some free circulators)

Action Items

The Coalition agreed to update the map and list provided at the meeting and to provide this to UDOT once it was ready. The group decided that it would take the refined list of transit projects and discuss them with UTA at a meeting prior to the land-use workshop (Workshop 4). The group agreed that both the roadway and transit projects would be identified prior to the September 4, 2014, land-use workshop.

2.4.2 Workshop 3B: Small-Group Workshop 4

Date: August 12, 2014

Time: 8:00 AM to 10:30 AM

Location: Utah Transit Authority, Salt Lake City, Utah

Agenda: There was no formal agenda for this meeting. This was the fourth small-group follow-up meeting. The purpose of the meeting was to further refine and identify the transit improvements with UTA that would be part of the Shared Solution Alternative.

Attendees: Attendees were Matt Sibul (UTA), G.J. LaBonty (UTA), Ivan Hooper (Avenue Consultants), Randy Jefferies (UDOT), Vince Izzo (HDR), Roger Borgenicht (UBET/Shared Solution Coalition), Mike Seely (Horrocks Engineers), Jayson Cluff (Horrocks Engineers), Mike Brown (Metro Analytics/Shared Solution Coalition), and Eric Rasband (UDOT).

Meeting Summary

The purpose of the meeting was to go over the transit list developed during the August 5 workshop (see Appendix D, Workshop 3 – Transit). During the meeting, each potential option was discussed with UTA to determine the feasibility of the option to be included in the Shared Solution Alternative. The main

discussion focused on transit fares and increasing capacity on FrontRunner. The group discussed these concepts and projects to clarify some of the assumptions for each of the concepts.

The main transit concepts discussed at the meeting were:

1. Fare incentives to increase ridership.
2. Increase capacity/headway on FrontRunner including double track and electrification.
3. Improved pedestrian and bicycle access to FrontRunner.
4. Segmenting Express Route 470 to improve ridership and schedule.
5. Bus rapid transit on SR 108 with peak-hour dedicated bus lanes in the shoulder.
6. Bus circulators to improve access to FrontRunner.
7. New FrontRunner station on 1800 North in Clearfield.
8. Queue jumping for bus rapid transit (BRT).
9. Improved modal connections.
10. Bicycle and pedestrian facilities, including breezeways, to improve access to transit.

Action Items

The Coalition agreed to update the map and list provided at the meeting and to provide this to UDOT once it was ready. The group decided that a refined transit and roadway list would be developed and shared with the attendees at the land-use workshop scheduled for September 4, 2014. The group also planned to meet with Bruce Cardon of UTA prior to the land-use workshop to get a better idea of increasing the capacity of FrontRunner.

2.4.3 Workshop 3C: Small-Group Workshop 5

Date: August 21, 2014

Time: 3:00 PM to 5:00 PM

Location: Utah Transit Authority, Salt Lake City, Utah

Agenda: There was no formal agenda for this meeting. This was the fifth small-group follow-up meeting. The purpose of the meeting was to explore options for capacity improvements to FrontRunner with UTA that would be part of the Shared Solution Alternative.

Attendees: Attendees were G.J. LaBonty (UTA), Bruce Cardon (UTA), Kerry Doane (UTA), Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Ivan Hooper (Avenue Consultants), Roger Borgenicht (UBET/Shared Solution Coalition), and Renae Widdison (Shared Solution Coalition).

Meeting Summary

The purpose of the meeting was to go over potential capacity improvements to the UTA FrontRunner system in Weber and Davis Counties. Bruce Cardon and Kerry Doane explained the current limiting factors on FrontRunner and discussed what improvements could help improve ridership.

The main FrontRunner improvements discussed at the meeting were:

1. Double tracking
 - a. About \$1 billion to double-track entire FrontRunner. This would be an unfunded project in the 2015–2040 RTP.
 - b. Select double-tracking areas could cost less; Jordan Narrows would be highest priority and would cost around \$30 million.
2. Electrification
 - a. Cost is estimated to be around \$1.5 billion to electrify FrontRunner.
 - b. Benefit would be that this could allow adding stations to FrontRunner.
3. Adding a fifth car to FrontRunner
 - a. Would cost around \$2 million to upgrade cars and stations to accommodate the fifth car.
4. Improved communication infrastructure
 - a. Electronic messaging boards in parking lots
 - b. Public address (PA) systems at stations
5. New circuits that could allow faster FrontRunner speeds on some segments
6. Increased parking capacity or circulators at the Layton station
7. Bridge going from the Clearfield station to Freeport Center

Action Items

UTA agreed to provide the group with a list of prioritized projects to consider for the Shared Solution Alternative. This list was provided on September 17, 2014, and is included in Appendix D, Workshop 3 – Transit.

2.5 Workshop 4: Land-Use Components of the Shared Solution Alternative

Date: September 4, 2014

Time: 1:00 PM to 5:00 PM

Location: Syracuse, Utah

Agenda: The agenda is included in Appendix E, Workshop 4 – Land Use.

Attendees: The list of attendees is included in Appendix E. Attendees included representatives from UDOT, the Shared Solution Coalition, UTA, WFRC, and local Cities and Counties.

Meeting Summary

The meeting began with a recap of the previous transportation and transit workshops for the group. Roger Borgenicht provided an overview of the six primary concepts for the Shared Solution Alternative (boulevard roadways, compact/mixed-use developments, incentivized transit, connected/protected bikeways, ramp metering on I-15, and I-15 overpasses). Randy Jefferies summarized the current roadway

1 and transit improvements that were being proposed as part of the Shared Solution Alternative. Map copies
2 of the Shared Solution Alternative were distributed to the group (see Appendix E).

3 Following the overview, Christie Oostema from Envision Utah, Reid Ewing from the University of Utah,
4 Ted Knowlton from WFRC, and Stephen James from Kennecott Land presented slideshows about the
5 links between land use and transportation for the group's consideration. A question-and-answer session
6 followed the presentations.

7 After the presentations, the groups split up into four breakout groups that were sorted geographically. The
8 first group had Farmington, Kaysville, and Layton. The second group had Syracuse and West Point. The
9 third group had Clearfield, Sunset, and Clinton. The fourth group had Roy and West Haven
10 (representatives from Hooper were also invited but didn't attend the meeting). All of the breakout groups
11 also had attendees from the Coalition and the WDC team.

12 Following the breakout group sessions, the larger group reconvened and summarized the results of their
13 sessions. Here is a summary.

14 **1. Farmington**

- 15 a. Not much land-use change from Shared Solution Alternative.
- 16 b. Still need I-15/Shepard Lane interchange under any scenario.

17 **2. Kaysville**

- 18 a. Still need the WDC in some form on west side of Kaysville. Thinks any other alternative
19 would fail without a WDC.
- 20 b. Already have a node at 200 North/SR 273.
- 21 c. Do not anticipate any land-use changes with Shared Solution Alternative.
- 22 d. Kaysville allows 0–15 residential units/acre.

23 **3. Layton**

- 24 a. Have a planned business node at 2700 West/WDC interchange.
- 25 b. Had a village center planned last year in west Layton that was voted down by referendum by
26 the residents of Layton, who wanted only single-family land use. Residents said that they
27 wanted only multi-family or mixed use in downtown areas.
- 28 c. Syracuse traffic uses Layton roads, and this will continue to get worse without a WDC
29 facility out west. Layton has been planning land use around the WDC.
- 30 d. Layton needs increased parking and bus access to the FrontRunner station.
- 31 e. Mixed use is planned for an area on West Hill Field Road.

32 **4. Syracuse**

- 33 a. The Shared Solution Alternative would have low-to-moderate probability of having TC-1
34 land use (defined in Appendix E) around Antelope Drive and 1000 West.
- 35 b. The Shared Solution Alternative would have a low-to-moderate probability of having Main
36 Street 0.5 land use (defined in Appendix E) around the Antelope Drive/2000 West
37 intersection.
- 38 c. SR 193 extension area between 2000 West and 3000 West is best opportunity for trying to
39 create jobs/employment centers. Higher probability of this happening.

- d. Don't think a boulevard on SR 108 (2000 West) would change the land use west of SR 108.
- e. Still need a roadway facility on Bluff Road or the WDC.

5. **Clearfield**

- a. 1000 West/Antelope could be TC-1 with a low-density boulevard.
- b. Overpass into Freeport Center from UTA FrontRunner station would be a benefit.
- c. Medium-density boulevard with medium-density node at SR 193/SR 126 could be possible.
- d. Medium-density boulevard on SR 126 could extend up to 300 North.
- e. I-15/650 North interchange needs improvement. Very congested already.
- f. Could be good opportunity for a node with higher-density land use around the Weber State University–Davis campus on Hill Field Road/SR 193.

6. **West Point**

- a. It's difficult to have any nodes in West Point.
- b. Any node/land uses would be TC low-density if anything.
- c. Job center opportunity at SR 193/SR 108 intersection (same comment as Syracuse).
- d. Still need a new higher-functional-class transportation facility out west with or without the WDC.
- e. Low probability of any land-use changes in West Point from the Shared Solution Alternative since land uses are almost all residential currently.

7. **Clinton**

- a. Larger residential lots are the fact of life in western Davis County.
- b. TC-1 land use at 1000 West/1800 North with 4–5 residential units/acre is already existing. No change with the Shared Solution Alternative.
- c. TC-2 land use (defined in Appendix E) at 2000 West/1800 North with 4–5 residential units/acre is already existing. No change with the Shared Solution Alternative.
- d. No changes to land use in Clinton with or without the WDC or the Shared Solution Alternative.

8. **Sunset**

- a. Sunset is already built out. Banking on Falcon Hill for new development.
- b. Potentially TC-2 land use at Falcon Hill.
- c. Potentially TC-2 land use at I-15/1800 North/SR 26.
- d. Maybe some transit-oriented development around 1300 North if a FrontRunner Station is added at this location.

9. **Roy**

- a. Nodes already exist. Roy is mostly already built out.
- b. Some existing commercial areas could potentially redevelop.
- c. Primary concerns are east-west mobility and getting onto I-15 and across I-15 to Riverdale.
- d. Crossings of the Denver & Rio Grande Western (D&RGW) rail line and Union Pacific Railroad/UTA rail lines could potentially help improve east-west mobility in Roy.

10. West Haven

- a. New trail connection will be built next year connecting the D&RGW Trail to the Weber River.
- b. Areas farther north of the WDC study area could be good boulevard candidates (2550 South).
- c. Better east-west connections to Riverdale are needed for western Weber County.
- d. Better east-west connections to I-15 are needed for western Weber County.
- e. No real land-use changes are expected in West Haven from the Shared Solution Alternative besides potential redevelopment of existing commercial areas around SR 108—low to moderate probability.

11. Hooper

- a. Has sewer issues that are limiting its new development.
- b. A proposal for higher-density housing recently failed in Hooper.

Action Items

Small-group workshops were scheduled for September 8 and September 11 to review and consolidate the input and feedback from the land-use workshop.

2.5.1 Workshop 4A: Small-Group Workshop 6

Date: September 8, 2014

Time: 8:30 AM to 12:00 PM

Location: HDR, Salt Lake City, Utah

Agenda: Recap and follow-up meeting from the September 4, 2014, land-use workshop.

Attendees: Attendees were Brianne Olsen (Langdon Group), Josh King (Langdon Group), Andy Neff (Langdon Group), Dan Adams (Langdon Group), Randy Jefferies (UDOT), Don Lever (Shared Solution Coalition), Vince Izzo (HDR), Kevin Kilpatrick (HDR), and Ivan Hooper (Avenue Consultants).

Meeting Summary

The group discussed the comments and input received from the Cities and Counties during the September 4, 2014, land-use workshop. The group discussed and compiled the feedback from the breakout sessions onto one map.

Action Items

Don Lever agreed to share the map and comments with the Coalition. This was to be discussed at the next small-group workshop on September 11, 2014.

2.5.2 Workshop 4B: Small-Group Workshop 7

Date: September 11, 2014

Time: 9:00 AM to 11:30 AM

Location: J-U-B Engineering, Salt Lake City, Utah

Agenda: Recap and follow-up meeting from September 4, 2014, land-use workshop.

Attendees: Attendees were Brianne Olsen (Langdon Group), Dan Adams (Langdon Group), Randy Jefferies (UDOT), Renee Widdison (Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), Vince Izzo (HDR), Kevin Kilpatrick (HDR), and Ivan Hooper (Avenue Consultants).

Meeting Summary

The group discussed the comments and input received from the Cities and Counties during the September 4, 2014, land-use workshop. The group reviewed the roadway components of the Shared Solution Alternative and identified a few areas that might be modified. The Coalition said that they would likely propose a two-lane extension of Bluff Road to Layton Parkway with a roundabout at Gentile Street as part of the next draft of the Shared Solution Alternative. The group discussed removing the 2200 West and 1000 North boulevards in Layton. The group also discussed modifying or deleting a few of the proposed trail segments. The Coalition agreed to update the map with the changes to the roads and trails.

The group discussed the land uses discussed at the September 4, 2014, meeting. The Coalition said that they would confer with their technical experts to identify the proposed land-use components for the Shared Solution Alternative. The Coalition also said that they didn't think that it would be necessary to use an expert panel to develop the Shared Solution land use or to evaluate the alternative.

The group said that they are anticipating a list of projects from UTA. Once they receive the list of transit projects, the Coalition will review the list and identify which, if any, transit projects will be proposed as part of the Shared Solution Alternative.

The final item the group discussed was the next workshop, which it tentatively agreed to hold on September 25, 2014, in Kaysville. The purpose of this meeting would be to present the preliminary final Shared Solution Alternative to the Cities, the Counties, WFRC, and other stakeholders; take any comments or feedback from the stakeholders; and discuss the evaluation process for the alternative.

Action Items

- The Coalition agreed to update the map with the roadway and trail changes discussed in the meeting. The Coalition also said that it would add the transit and land-use components to the map and would try to get the map to the group on September 19 or September 22 at the latest so that the map could be distributed in advance of the September 25 workshop.
- UDOT agreed to send the Coalition kmz files of the existing and planned trails in the WDC study area so that the Coalition could finalize the proposed trail components of the Shared Solution Alternative.

2.6 Workshop 5: Presentation of the Shared Solution Alternative

Date: September 25, 2014

Time: 2:00 PM to 4:30 PM

Location: Kaysville, Utah

Agenda: The agenda is included in Appendix F, Workshop 5 – Draft Shared Solution Alternative.

Attendees: The list of attendees is included in Appendix F. Attendees included representatives from UDOT, the Shared Solution Coalition, UTA, WFRC, and local Cities and Counties.

Meeting Summary

The primary purpose of this meeting was to describe and get feedback on the draft Shared Solution Alternative. All attendees were given copies of a map of the Shared Solution Alternative that had been prepared on September 24, 2014 (see Appendix F). Following presentations from representatives of the Coalition, the meeting split into breakout groups to get the Cities' feedback on the draft Shared Solution Alternative.

The breakout groups had the following recommendations and suggestions for the Shared Solution Alternative:

1. Weber County (West Haven, Roy, and Hooper)

a. Roy

- i. Didn't have any proposed changes to the Shared Solution Alternative map. Steve Parkinson reiterated that Roy's primary needs are better east-west transportation and access to I-15.

b. West Haven

- i. Steve Anderson recommended looking at roadway improvements to 4400 South that could help relieve congestion on Riverdale Road. Steve also said that 4400 South could be a good location for a trail connection.
- ii. Steve said that the intersection of Hinckley Drive and SR 108 could also be a good node location because the area is not currently developed.

c. General discussion in the breakout group

- i. The group also discussed growth patterns and the limits of local land use for existing development and privately owned land in Utah.

2. Clearfield, Clinton, and Sunset

a. Reconfigure the I-15 crossing to go north-south on 1500 East.

b. Recommend showing the canal trail by I-15 that crosses I-15 at 200 South.

- c. Recommended changing the following land uses:
 - i. Delete the transit-oriented development at 1800 North.
 - ii. Change BC-2 to BC-1 (defined in Appendix E, Workshop 4 – Land Use) on SR 126.
 - iii. Change TC-2 to TC-1 at 1800 North.
 - iv. Change BC-3 (defined in Appendix E) to BC-2 on SR 126.

3. Syracuse and West Point

- a. Recommended making Bluff Road three lanes from Gentile Street to 3000 West.
- b. Recommended extending Bluff Road (as a three-lane facility) from 3000 West to 300 North.
- c. Wanted to show trail extension adjacent to SR 193 corridor from 2000 West to the Emigrant Trail.

4. Farmington, Kaysville, and Layton

- a. Farmington recommended connecting the bus rapid transit route to the Farmington FrontRunner station.
- b. Layton said that the speed limit on Layton Parkway should be 35 mph (miles per hour) and not a higher expressway speed.

Action Items

- UDOT agreed to schedule follow-up meetings with the Coalition to finalize the Shared Solution Alternative based on the feedback and recommendations provided at the workshop.
- UDOT also agreed to meet with UTA and WFRC to finalize the transit projects and land-use modeling assumptions that would be included in the Shared Solution Alternative.

2.6.1 Workshop 5A: Small-Group Workshop 8

Date: September 29, 2014

Time: 9:00 AM to 12:30 PM

Location: HDR, Salt Lake City, Utah

Agenda: Recap and follow-up meeting from September 25, 2014, workshop.

Attendees: Attendees were Dan Adams (Langdon Group), Randy Jefferies (UDOT), Renae Widdison (Shared Solution Coalition), Don Lever (Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Ivan Hooper (Avenue Consultants), Jayson Cluff (Horrocks Engineers), and Mike Seeley (Horrocks Engineers).

Meeting Summary

The group reviewed the notes, maps, comments, and input received from the Cities and Counties during the September 25, 2014, workshop. The group reviewed the suggestions listed in the minutes from the September 25, 2014, workshop and combined all of these suggestions and recommendations onto one map that was provided to the Coalition. The Coalition agreed to review this information and provide an updated map with any of the changes that they wanted to be included in the Shared Solution Alternative.

The group also discussed the UTA list of transit projects (submitted to UDOT on September 25, 2014) to consider for the Shared Solution Alternative. The following are the transit modeling notes.

- Model improvements directly.
- Should model one run with and one without Shared Solution transit elements.
- Fare incentives for FrontRunner for Davis and Weber Counties.
- Bus rapid transit improvements and incentives for Davis County only.
- To determine the cost of the incentive program, use a baseline model compared to the Shared Solution and use the difference to determine the cost.
- Model route 640 as BRT 1 (bus rapid transit with mixed-flow lanes).
- Add Mike Brown's circulators to the map.
- Need to identify percent bicycle trips based on Salt Lake City and other cities.
- Use model capture around stations to determine walk trips.
- Intermodal hubs—four stations in study area—should be modeled as seamless connections.
- Enhanced branding and marketing can be modeled by faster bus rapid transit.
- Hard improvements (signs, dedicated lanes, etc.) let UTA determine percent of ridership improvement.

The group also discussed the modeling for the land-use changes. The group said that a meeting with WFRC would be needed to get consensus on modeling for the proposed land-use changes. The following modeling assumptions were proposed for the basic land-use categories proposed as part of the Shared Solution Alternative:

- Town Centers – 0.25-mile square
- Boulevard Communities – 500 feet
- Main Streets – 250 feet

Action Items

- The Coalition agreed to review the suggestions provided by the Cities and to update the map with any changes they felt should be part of the Shared Solution Alternative.
- UDOT agreed to schedule additional meetings with WFRC and UTA to discuss the land-use modeling and transit projects for the Shared Solution Alternative.
- UDOT also agreed to schedule additional follow-up meetings with the Coalition to help finalize the Shared Solution Alternative and agree on the modeling assumptions that would be used to evaluate the alternative.

2.6.2 Workshop 5B: Small-Group Workshop 9

Date: October 8, 2014

Time: 9:00 AM to 12:00 PM

Location: HDR, Salt Lake City, Utah

Agenda: Discuss and finalize Shared Solution Alternative; discuss modeling details.

Attendees: Attendees were Randy Jefferies (UDOT), Renae Widdison (Shared Solution Coalition), Don Lever (Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Ivan Hooper (Avenue Consultants), Bill Hereth (Avenue Consultants), Jayson Cluff (Horrocks Engineers), and Mike Seeley (Horrocks Engineers).

Meeting Summary

The group discussed the following topics:

1. **Map Review and Schedule** – The group discussed the most recent version of the Shared Solution Alternative map. The group said that there would be a few changes in Sunset and Layton and to the Farmington bus rapid transit. The group also said that the Layton Parkway connection to Bluff Road should not be considered a boulevard and should go from only 2700 West to Gentile Street. The group agreed that there would be no new extension of Bluff Road to 300 North because 3000 West and 4500 West provide adequate access to the existing Bluff Road.
2. **UTA Transit Components** – Randy told the group that he had spoken with G.J. Labonty at UTA and that G.J. had emphasized that UTA was comfortable only studying or researching transit projects in the WDC study area, not proposing any new projects at this time until more information about their effectiveness and financing is available. Randy told the group that G.J. was open to the idea of transit incentives like the Hive Pass in Salt Lake City, Utah, if there is a funding source available. The group discussed how incentivized transit would be modeled. Mike Brown and Ivan Hooper said that they would need to discuss the particular details for this in the model. Mike Brown also said that there would be two or three circulators proposed for the Shared Solution Alternative.
3. **Bicycle Share** – The group reviewed data from the Federal Highway Administration that showed the bicycle share for Davis, Weber, and Salt Lake Counties. The data showed that the Davis County bicycle share is only 0.3% of trips and that the Salt Lake County bicycle share is 0.8%. Mike Brown stated that other studies or surveys have reported that bicycle share could be as high as 13% in Salt Lake County. Mike Brown said he would check with Shauna Burbridge to see whether there is any additional information on this study. The group agreed to target a bicycle share of 0.8% for the Shared Solution Alternative in the WDC study area. The WFRC model output will be reviewed to determine whether the 0.8% is achieved, and, if not, it would be updated in the model. The group also said that grade-separated bicycle facilities at Antelope Drive/SR 126, Hill Field Road/SR 126, and SR 193/SR 126 could also be included to help with bicycle mode share.
4. **I-15 Overpasses** – The group decided to remove the I-15 overpass at 300 North from the Shared Solution Alternative because they didn't anticipate it providing much reduction in delay or congestion. The group did decide to keep the I-15 overpass at 1500 East/Valhalla Drive in Layton.

- 1 5. **I-15 Ramp Metering** – The group had a lengthy discussion
2 about how to model ramp metering for the Shared Solution
3 Alternative. Mike Brown proposed a method that would
4 reduce the vehicles per hour per lane (vphpl) on I-15 for the
5 WDC No-Action and action alternative scenarios to
6 1,500 vphpl from 2,200 vphpl. Mike Brown proposed using
7 ramp metering to bring the capacity up to 2,100 vphpl from
8 1,500 vphpl for the Shared Solution Alternative. The group
9 discussed this proposal and said that this would require
10 further discussion with WFRC and UDOT, since the travel
11 demand model currently assumes 2,200 vphpl on I-15. The
12 group agreed that 8 minutes would be the maximum amount
13 of ramp metering delay that could be assumed as part of the Shared Solution ramp metering
14 proposal.

What is a travel demand model?

A travel demand model is a computer model that predicts the number of transportation trips (travel demand) in an area at a certain time in the future. This prediction is based on the expected population, employment, household, and land-use conditions in the area.

- 15 6. **Land Use/ET Plus** – Ivan and Bill from Avenue Consultants
16 showed the group the draft ET Plus output for the Shared
17 Solution Alternative. The draft ET Plus output showed the
18 parcels that could potentially be developed or redeveloped
19 with the draft Shared Solution Alternative based on the types
20 of land use, the distances from roadway facilities, and the age
21 of the existing land use. The group thought that this informa-
22 tion was helpful and offered a few revisions for the data set.
23 Ivan and Bill agreed to update the ET Plus data set with the group's suggested revisions and
24 distribute it to the Coalition for review and comment. Ivan and Bill also said that the Coalition
25 needed to review the ratios for housing density, floor to area, and office to retail that go into the
26 ET Plus model. Randy said that, once the ET Plus land-use model was reviewed and finalized,
27 this would be used to determine the land-use proposals that are part of the Shared Solution
28 Alternative.

What is ET Plus?

Envision Tomorrow Plus (ET Plus) is a software package provided by Envision Utah that allows users to model development scenarios.

- 29 7. **Next Meeting** – Randy told the group that WFRC could meet on Tuesday, October 14, 2014, and
30 asked the Coalition to let him know if this date would work for them.

Action Items

- 31
- 32 • UDOT agreed to identify and add any large parcels near nodes on SR 126 to the ET Plus output
 - 33 files. Once these larger parcels are added to the ET Plus model, UDOT will send the ET Plus files
 - 34 to the Coalition to review along with the three ratios needed for the ET Plus model (residential
 - 35 density ratio, floor area ratio, and office-to-retail ratio).
 - 36 • The Coalition agreed to review the ET Plus model and provide UDOT with any comments.
 - 37 • The Coalition agreed to update the Shared Solution Alternative map with the changes discussed
 - 38 in the meeting.
 - 39 • The Coalition agreed to quickly let UDOT know whether they would be able to attend a meeting
 - 40 with WFRC on October 14, 2014.

2.6.3 Workshop 5C: Small-Group Workshop 10

Date: October 14, 2014

Time: 2:00 PM to 3:00 PM

Location: WFRC, Salt Lake City, Utah

Agenda: Discuss land-use inputs for Shared Solution Alternative; discuss modeling details for land-use inputs.

Attendees: Attendees were Randy Jefferies (UDOT), Renae Widdison (Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Ivan Hooper (Avenue Consultants), Bill Hereth (Avenue Consultants), Jayson Cluff (Horrocks Engineers), Mike Seeley (Horrocks Engineers), Ted Knowlton (WFRC), Ned Hacker (WFRC), Scott Festin (WFRC), and Reid Ewing (University of Utah).

Meeting Summary

The group discussed the following topics:

1. **Land-Use Data for the Shared Solution Alternative** – Randy reviewed the latest version of the Shared Solution Alternative map that showed the proposed roadway, transit, and land-use categories in the WDC study area. Randy also provided an overview of the more detailed draft ET Plus maps and data that Ivan and Bill from Avenue Consultants had updated since the last meeting. The draft ET Plus maps showed the parcels that could potentially be developed or redeveloped with the draft Shared Solution Alternative based on the types of land use, the distances from roadway facilities, and the age of the existing land use. Randy, Ivan, and Bill reviewed the methodologies that were used for each land-use category (250 feet wide for Main Streets, 500 feet wide for Boulevard Communities, and 0.25 mile square for Town Centers). Ivan and Bill also detailed the land-use types and ages that were used to identify potentially redevelopable parcels. In summary, the ET Plus analysis showed 1,470 redevelopable acres out of the 2,959 total acres that were in the buffers identified for the Shared Solution Alternative.

Ted Knowlton and Reid Ewing both thought that the methodologies for the land-use redevelopment areas in ET Plus seemed reasonable and appropriate for the area. Ted and Reid also agreed that the buffers for the land-use categories seemed appropriate for the area.

Randy said that the ET Plus data would be input into the traffic analysis zones (TAZs) prior to evaluating the Shared Solution Alternative.

2. **Land-Use Control Totals/Redistribution Boundary** – The group discussed the control totals and what geographic boundary to use for the population, household, and jobs redistribution for the Shared Solution Alternative. Ted from WFRC stated that having control totals are necessary and that either the WDC study area boundary or the county control totals would be appropriate for this process. The group agreed that using the county-level control totals and the county boundaries for redistribution would be reasonable and appropriate for the Shared Solution process. Mike Brown and Reid Ewing said that using the WDC study area boundary could potentially result in some of the benefits of the Shared Solution Alternative not showing up in the results if the benefits occur outside the WDC study area. Scott Festin and Reid Ewing both said that there might need to be some additional discussion to determine where all of the growth goes if it does not all fit into the ET Plus redevelopment areas and the process for redistribution. The

group said that, in general, they would anticipate that higher-density redevelopments would be more likely closer to I-15 and that lower-density redevelopment would be more likely farther west in the WDC study area.

3. **Deliverables for WFRC** – The group discussed the data and format that are needed to facilitate WFRC’s review of the proposed land-use changes. WFRC requested the following information:
 - a. Summary data for each TAZ showing the existing and proposed and net changes in data for each TAZ
 - b. Source data (ET Plus files)
 - c. Notes on any changes to the TAZs for any split TAZs
4. **Schedule** – Randy told the group that it would likely take 2 weeks to build, review, and finalize the TAZ file. WFRC estimated that it would likely take 1 to 2 weeks to review the information once it’s available. Randy stated that his goal was to have the Level 1 screening results for the Shared Solution Alternative available for review prior to Thanksgiving (November 27, 2014). WFRC could meet on Tuesday, November 4, 2014, and asked the Coalition to let him know if this date would work for them.

Action Items

- The Coalition will review updated ET Plus data and suggest any additional changes.
- UDOT will work with the Coalition to prepare TAZ files in the next 2 weeks.
- UDOT will review other Town Centers identified by Reid Ewing to see their dimensions and whether they are applicable to the WDC study area.
- UDOT will schedule a follow-up meeting with WFRC to discuss the TAZ and land-use data after WFRC has had a chance to review the information.

2.6.4 Workshop 5D: Small-Group Workshop 11

Date: October 22, 2014

Time: 3:15 PM to 6:00 PM

Location: Avenue Consultants, Salt Lake City, Utah

Agenda: Discuss land-use scenario and modeling assumptions for Shared Solution Alternative.

Attendees: Attendees were Randy Jefferies (UDOT), Renae Widdison (Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Ivan Hooper (Avenue Consultants), Jayson Cluff (Horrocks Engineers), and Mike Seeley (Horrocks Engineers).

Meeting Summary

The group discussed the following topics:

1. Land-Use Scenario Finalization

- a. The group discussed the map of potential development areas that was provided by the Coalition. The group noted a few areas that they might want to edit on the west side of SR 126 in Layton, but overall thought that it looked good.
- b. The group also discussed the assumptions and ratios for floor-to-area ratios and residential-to-commercial land uses for mixed-use areas. The group concluded that more research was needed to get a more accurate number and agreed to do more research on this issue with WFRC, Steven James, PRI, and Envision Utah over the upcoming week.
- c. The group also discussed the method for calculating the population, housing, and jobs in the nodes and boulevards and how to split the TAZs.
- d. Randy asked the Coalition if it was okay to publish the Shared Solution Alternative map on the WDC website. The Coalition agreed to allow UDOT to publish the map along with the land-use codes.

2. Modeling Assumptions

- a. The group reviewed the previous assumptions on ramp metering, new overpasses, transit, and bikeways. The group was in agreement for these except for the bicycle mode share. Mike Brown agreed to discuss an appropriate bicycle mode share with Shauna Burbridge and make a recommendation on this at next week's meeting.
- b. For boulevards, the group agreed to let the model calculate the free-flow speeds. Mike Brown said that he expects that the boulevards would have lower free-flow speeds because of the surrounding land uses, but that the innovative intersections would improve travel time along a route, so that the net effect would be minimal compared to the existing conditions.
- c. For innovative intersections, the group discussed doing stress tests comparing innovative intersections with traditional intersections to see the relative differences in capacity. The group also discussed using some of UDOT's data on recently completed innovative intersections to come up with a factor to account for the benefits of the innovative intersections.

3. **Next Meeting** – The group agreed to hold its next meeting on Thursday, October 30, 2014, at Avenue Consultants.

Action Items

- The Coalition and UDOT will review floor-to-area ratios and residential-to-commercial ratios with WFRC, Envision Utah, Steven James, and PRI before the next meeting.
- UDOT will provide the socioeconomic data to the Coalition. UDOT will add the Salt Lake County and Utah County data to the spreadsheets.
- UDOT will start working on splitting the TAZs based on the land-use files.
- Mike Brown or the Coalition will check with Shauna Burbridge on appropriate bicycle mode share numbers for the WDC study area.

2.6.5 Workshop 5E: Small-Group Workshop 12

Date: October 30, 2014

Time: 2:00 PM to 5:30 PM

Location: Avenue Consultants, Salt Lake City, Utah

Agenda: Discuss land-use scenario and modeling assumptions for Shared Solution Alternative.

Attendees: Attendees were Randy Jefferies (UDOT), Renae Widdison (Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Kevin Kilpatrick (HDR), Ivan Hooper (Avenue Consultants), Jayson Cluff (Horrocks Engineers), and Mike Seeley (Horrocks Engineers).

Meeting Summary

The group discussed the following topics:

1. Land-Use Assumptions

- a. The group discussed Farmington's Station Park development (64 acres, 970,000 square feet of retail space, and 200,000 square feet of office space). The group said that mixed-use area ratios in the WDC study area would likely be around 80:20 residential to commercial in the eastern parts of the WDC study area and around 90:10 residential-to-commercial in the western parts of the WDC study area.
- b. The group said that the WFRC 2040 socioeconomic data show that there would be many more households than jobs in the WDC study area.
- c. Ivan Hooper updated a spreadsheet with the socioeconomic data to reflect the input from the group at the meeting.
- d. Mike Brown's recap notes:
 - i. Since the study area currently is very heavily a "bedroom community," it would be great if we could grow only jobs and no houses for awhile to help bring the study area into balance. But, as that is unrealistic, the next best thing is to aim such that the new growth in the study area will at least meet the regional jobs/household average. That helps balance the area internally over time.
 - ii. When looking at the default growth in the WFRC model, it does not occur at the regional average for jobs/households. There are too many households and not enough jobs in the study area.
 - iii. To increase the odds that we are exporting fewer workers, we decided to import roughly 10,000 jobs from elsewhere in Davis County and export roughly 5,000 households mostly to the south where they would be closer to the Salt Lake City jobs. That way, study-area growth will be at regional average.
 - iv. A caution here is that the numbers we were working with today didn't include industrial jobs. So it would be good if you could bring those in and see how regional jobs/households changes, and if the import/export numbers should be different than 10,000/5,000.

What is a bedroom community?

A bedroom community is a residential area that is separated from employment areas. Most people who live in a bedroom community commute to jobs in a different location.

- v. Next we talked about how to redistribute jobs and households that were already inside. It looked like, based on the acreage of nodes/boulevards and the floor-to-area ratios we modified, we would end up pulling about two-thirds of all new households into the boulevard/node parcels, while one-third would continue as normal. For jobs, it looked like about 90% of all new job growth would be in boulevards.
- vi. Of the two-thirds households pulled into boulevards, we talked about taking them from the far west zones (that is, those zones would have slowest growth rate), then the next set of zones would have also slow rate, but slightly faster.

2. Socioeconomic Data Shifts

- a. The Shared Solution Alternative socioeconomic data will shift 5,000 households to areas south of Centerville and along I-15 in Davis County. This shift will decrease some of the expected household growth in the western part of the WDC study area.
- b. Ten thousand jobs will be added/shifted to the WDC study area. Eighty percent of these new jobs will come from Davis County areas located south of Farmington. About 2,000 jobs will come from Weber County north of the WDC study area.

3. Traffic Analysis Zones

- a. Jayson and Ivan provided an update on the TAZ splitting process and said that the new TAZs would be sliver TAZs that would be split entirely from the existing TAZs.

4. Bicycle Mode Share

- a. Randy gave an update from his talk with Shauna Burbidge. Randy said that Shauna thought that around 5% of the population in the WDC study area might ride a bicycle to work once a week or more if there are good bicycle trail connections.
- b. The group discussed this and agreed to have a follow-up conversation with Shauna to clarify how this would relate to an annual bicycle share percentage for the WFRC travel demand model.

5. Innovative Intersection Modeling

- a. Mike Seeley provided VISSIM results from some sample intersections on Antelope Drive that were modeled with innovative intersections (median U-turns and quadrants) to see what sort of capacity improvements resulted from these innovative intersections. Mike said that the improvements were not uniform and depended on existing traffic volumes. Mike also pointed out that, although the innovative intersections in some situations could improve the capacity of the intersections, they also could result in more delay at the intersections because of increased out-of-direction travel and some drivers having to go through two signals instead of one signal.
- b. After discussion and review of the data, Mike Brown thought that using a 17% capacity-improvement factor for lower-volume innovative intersections and a 22% capacity-improvement factor for higher-volume innovative intersections (for example, intersections with two arterials) would be an appropriate modeling assumption.

What is VISSIM?

VISSIM is traffic modeling software that focuses on smaller areas (such as interchanges or intersections) and accounts for geometric designs and layouts. It models individual vehicles and accounts for varying driver behavior, lane changes, vehicle speeds, and possible traffic congestion.

6. **Next Meeting** – The group agreed to hold its next meeting on Thursday, November 6, 2014, at Avenue Consultants.

Action Items

- UDOT will provide the updated socioeconomic data to the Coalition for review.
- UDOT will continue splitting the TAZs based on the land-use files.
- Randy Jefferies will check with Shauna Burbridge to clarify an appropriate bicycle mode share number for the WDC study area.

2.6.6 Workshop 5F: Small-Group Workshop 13

Date: November 6, 2014

Time: 1:30 PM to 5:00 PM

Location: Avenue Consultants, Salt Lake City, Utah

Agenda: Discuss land-use scenario and modeling assumptions for Shared Solution Alternative.

Attendees: Attendees were Randy Jefferies (UDOT), Renae Widdison (Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Kevin Kilpatrick (HDR), Ivan Hooper (Avenue Consultants), Jayson Cluff (Horrocks Engineers), and Mike Seeley (Horrocks Engineers).

Meeting Summary

The group discussed the following topics:

1. Land-Use Modeling Assumptions

- a. The group reviewed the modeling assumptions and methodologies for the Shared Solution Alternative land use. Randy updated the modeling sheet based on this discussion.
- b. The Coalition requested the chance to talk to Reid Ewing about the assumptions and script that could be used to model a lower vehicle-ownership rate in higher-density mixed-use areas.
- c. Based on the group's discussions at the meeting, Ivan Hooper agreed to modify the floor:area, residential:commercial, and retail:office ratios to try to achieve the desired level of jobs and households in the analysis area while maintaining the county control totals.
- d. Jayson Cluff has completed creating the new TAZs and would work on getting the centroids calculated and giving this information to Ivan.

2. Data for WFRC to Review

- a. The group discussed the information to provide to WFRC and agreed to make maps of the TAZs and tables showing the jobs, households, and populations for the TAZs. The group also agreed to try to break the data into districts to make it easier to review and to provide a summary of the process and methodology that was used to come up with this socioeconomic data.

3. **Other Modeling Assumptions (Transit, Bicycles, Boulevards, Innovative Intersections, Etc.)**

- a. The group also reviewed the other modeling assumptions, and Randy updated the modeling report based on the discussion. The group said that they were waiting for input from Shauna Burbidge before making a final decision about how to model the bicycle mode share. The group also discussed the seasonal traffic variability on I-15 at different locations based on data provided by Mike Seeley.

4. **Next Meeting** – The group agreed to hold its next meeting on Tuesday, November 18, 2014, at 9 AM at Avenue Consultants.

Action Items

- UDOT will provide the updated socioeconomic data and TAZ maps to the Coalition for review the week of November 10 once they are available.
- Randy Jefferies will check with Shauna Burbidge to clarify an appropriate bicycle mode share number for the WDC study area.

2.6.7 Workshop 5G: Small-Group Workshop 14

Date: November 18, 2014

Time: 9:00 AM to 11:30 AM

Location: Avenue Consultants, Salt Lake City, Utah

Agenda: Discuss land-use scenario and modeling assumptions for Shared Solution Alternative.

Attendees: Attendees were Randy Jefferies (UDOT), Renae Widdison (Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Kevin Kilpatrick (HDR), Vince Izzo (HDR), Ivan Hooper (Avenue Consultants), Jayson Cluff (Horrocks Engineers), and Mike Seeley (Horrocks Engineers).

Meeting Summary

The group discussed the following topics:

1. **Finalizing Land-Use Modeling Scenario**

- a. The group reviewed and discussed the household, employment, income, and vehicle-ownership data that were provided by Ivan Hooper prior to the meeting. Overall, the group thought it looked good but had a few items to update:
- i. Need to add 3,500 households back into the WDC study area. These will be taken from South Davis and Ogden areas and redistributed by putting one-third of the households in the redevelopment areas and two-thirds in the rest of the WDC study area.
 - ii. Need to add 3,500 jobs back into the WDC study area. These will be taken from South Davis and Ogden areas, and redistributed by putting one-third of the jobs in the redevelopment areas and two-thirds in the rest of the WDC study area.
 - iii. Need to check retail to other employment ratios.
 - iv. Ivan will split the districts in Davis County at 3000 West instead of 2000 West.

- b. Ivan will update this information by the end of the week and will update the maps and data tables as needed to reflect these changes.
- c. Once they receive the information, the Coalition will review the information with Reid Ewing.
- d. Jayson Cluff has completed creating the new TAZs and will work on getting the centroids calculated and giving this information to Ivan.

2. Plan to Submit Data for WFRC to Review

- a. The group thought that providing Ivan's information along with a memo that documents the process and methodologies that were used to create it would be the appropriate information to provide to WFRC.
- b. The Coalition agreed to draft a cover letter to go along with this information requesting WFRC's review.
- c. The goal is to have this information to WFRC to review before Thanksgiving (November 27, 2014).

3. Other Modeling Assumptions

- a. The group also reviewed the other modeling assumptions, and Randy updated the attached modeling report based on the discussion.
- b. For the auto ownership data, Ivan said that the data did show a small increase in 0- or 1-car households and a decrease of 2-to-3-car households for the WDC study area. Mike Brown wanted to review this script with Reid Ewing to see whether there were any other income adjustments that could be made.
- c. For the innovative intersections, Jayson Cluff reported that the weighted average delay for left turns was about 1 minute per vehicle, and that left-turn movements were about 20% of the traffic for heavy-volume intersections and about 10% for lighter-volume intersections.
- d. The group discussed the input from Shauna Burbidge on the bicycle mode share. The group wanted to try to target a 3% bicycle mode share in the WDC study area and wanted to check with Shauna Burbidge on the appropriate percentage for home-based non-work trips.
- e. For ramp metering, Jayson reported that he had been able to run Mike's script and had adjusted it so that it assumes ramp metering only during the AM and PM peak-hour periods and is not assumed to be on during the midday and evening periods.

Action Items

- Ivan Hooper will update and send land-use modeling data to the Coalition for review and for them to send to Reid Ewing for review.
- The Coalition will prepare a cover letter to accompany the socioeconomic data that will be sent to WFRC for review.
- Meeting with Coalition will be on November 24.
- Need to schedule the next Coalition workshop after WFRC reviews and approves land-use data. Goal is to have this meeting in December before Christmas if possible.

2.6.8 Workshop 5H: Small-Group Workshop 15

Date: November 24, 2014

Time: 4:00 PM to 5:45 PM

Location: Assist Utah, Salt Lake City, Utah

Agenda: Update Shared Solution Coalition on the development and modeling assumptions of the Shared Solution Alternative.

Attendees: Attendees were Randy Jefferies (UDOT), Kevin Kilpatrick (HDR), Ivan Hooper (Avenue Consultants), and the following members of the Shared Solution Coalition: Renae Widdison, Roger Borgenicht, Mike Brown, Heather Dove, Tim Rodee, Ann Floor, Kathy Van Dame, Todd Jensen, Yaeko Bryner, Lynn de Freitas, Chris Montague, Tim Wagner, Steve Erickson, Bruce Bassett, and Jason Steed.

Meeting Summary

The group discussed the following topics:

1. Overview and Summary of the Shared Solution Alternative-Development Process

- a. Randy and Roger provided an overview of the Shared Solution Alternative, noting the roadway, transit, and land-use components that were included. Randy provided the group with a handout that summarized the workshops and technical meetings that UDOT and representatives from the Coalition had attended to develop the Shared Solution Alternative.

2. Overview and Summary of the Shared Solution Alternative Modeling Assumptions and Methodology

- a. Randy provided the group with a handout that listed the modeling assumptions for each of the six core principles of the Shared Solution Alternative.
- b. Ivan Hooper and Mike Brown discussed the basis for these modeling assumptions and answered questions from the group.

3. Next Steps

- a. Randy said that, per the terms of the MOA, the group needed to provide the land-use data to WFRC to review and approve. Randy stated that he was hoping to get this to WFRC that week if possible.
- b. After WFRC has reviewed and approved the land-use data, the next step is to model the Shared Solution Alternative. Ivan Hooper and Jayson Cluff from Horrocks Engineers will be leading this effort. Mike Brown will be assisting and reviewing once it's complete.
- c. After the modeling has been completed, the results of the modeling and Level 1 screening will determine the next steps.
- d. Randy said that UDOT would like to hold the next workshop in December to share the results of the Shared Solution Alternative evaluation with the public and other interested stakeholders before Christmas.

2.6.9 Review and Approval of Shared Solution Land-Use Data by WFRC

On December 1, 2014, the Coalition submitted the updated Shared Solution Alternative land-use data and modeling assumptions to WFRC to review. Copies of this information are included in Appendix G, Final Shared Solution Land-Use and Modeling Information.

A meeting was held at WFRC on December 9, 2014, at 8:00 AM to go over WFRC's comments on the Shared Solution data. In the meeting, WFRC felt that the overall Shared Solution Alternative land-use and socioeconomic data were reasonable given the transportation infrastructure being proposed by the Coalition. WFRC said that they had no substantial comments regarding the Shared Solution Alternative land-use and socioeconomic data assumptions.

2.6.10 Workshop 5I: Small-Group Workshop 16

Date: December 11, 2014

Time: 9:30 AM to 3:30 PM

Location: Avenue Consultants, Salt Lake City, Utah

Agenda: Discuss the final Shared Solution model and screening criteria.

Attendees: Attendees were Randy Jefferies (UDOT), Renae Widdison (Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Vince Izzo (HDR), Ivan Hooper (Avenue Consultants), and Jayson Cluff (Horrocks Engineers).

Meeting Summary

The group discussed the following topics:

1. Finalizing WFRC Version 7 Traffic Model for the Shared Solution

- a. The purpose of the meeting was to go over the final WFRC version 7 traffic model for the Shared Solution to ensure that the model accurately represents the Shared Solution Alternative. Based on review of the model, the following modifications were recommended:
 - i. Adjust the 17% capacity improvement links on boulevards on either side of innovative intersections to the halfway point from the adjacent likely future normal signalized intersection. Use Google Earth to make assumptions regarding the locations of these future signalized intersections. The result should be to extend some of the segments with the 17% increase in capacity.
 - ii. Provide a one-lane-each-way overpass link on SR 193 over State Street and code it as FC 29. Increase the capacity of the SR 193 and I-15 interchange by 10%. East of the interchange, change the centroid of a link south of SR 193.
 - iii. At Layton Hills Mall, connect the new overpass on I-15 to 700 West on the east side of I-15. Add a link to represent a connector road to the north, also to be used by the BRT line.
 - iv. Code the new section of road on Bluff Street that connects to Layton Hills Parkway as a minor arterial.

- v. Review ramp metering assumptions to maximize use of I-15 (approaching volume-to-capacity [V/C] ratio of 0.9) and minimize ramp metering times. Run the model with and without ramp metering.
- vi. Adjust the transit script for the commuter rail fare from 0.75 to 0.5.
- vii. Fix the 2000 West BRT to connect directly from Antelope Drive to the Clearfield Station.
- viii. Change all BRT headways to be 15 minutes.
- ix. Review Mike's transit Google Earth files and adjust the stops to match. The current model has too many stops.
- x. Use the new land-use file as revised based on WFRC's comments.

2. Present Three Shared Solution Screening Scenarios

- a. Randy went over the three Shared Solution screening scenarios. He said that the screening process would be the same as the process used for the previously screened alternatives as documented in *Technical Memorandum 15: Alternatives Screening Report*.
 - i. Shared Solution Alternative meets the criteria of three above quartile and two above average.
 - 1) Define Shared Solution Alternative to develop footprints for impact analysis, and develop cost estimate.
 - 2) Seek approval from Cities and UTA on the alternative.
 - 3) Use Level 2 screening criteria to determine whether the alternative is reasonable.
 - ii. Shared Solution Alternative is above average for all criteria.
 - 1) Refine alternative and rerun model to determine whether the alternative meets Level 1 screening criteria.
 - iii. Shared Solution Alternative does not meet Level 1 screening criteria (has below-average or worse than no-build for any of the five screening criteria).
 - 1) Alternative is dismissed.

Action Items

- Jayson Cluff will revise the WFRC Shared Solution Alternative model based on comments from the meeting and will have results on Friday.
- The Shared Solution Coalition will review the results.
- Meeting with Coalition to review results will be on December 15.

2.6.11 Workshop 5J: Small-Group Workshop 17

Date: December 15, 2014

Time: 10:30 AM to 12:30 PM

Location: HDR Engineering, Salt Lake City, Utah

Agenda: Discuss the Level 1 screening results for the preliminary Shared Solution Alternative.

Attendees: Attendees were Randy Jefferies (UDOT), Renae Widdison (Shared Solution Coalition), Roger Borgnicht (UBET/Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution

Coalition), Ann Floor (Shared Solution Coalition), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Ivan Hooper (Avenue Consultants), and Jayson Cluff (Horrocks Engineers), Brianne Olsen (Langdon Group), and Dan Adams (Langdon Group).

Meeting Summary

The group discussed the following topics:

1. Review Shared Solution Modeling Results

- a. The group reviewed and discussed the preliminary Level 1 screening results for the Shared Solution Alternative. Randy said that the Shared Solution Alternative had passed Level 1 screening but said that some of the assumptions would still need additional clarification and additional analysis before the Shared Solution Alternative could be advanced to Level 2 screening.
- b. The group specifically discussed the mode share data for the Shared Solution Alternative and noted that the bicycle mode share percentage was likely too high, especially for the home-based work trips (bicycle mode share was around 9% of total trips in the WDC study area). The group agreed to discuss this assumption further with Shauna Burbidge to determine whether a refinement of the mode share was appropriate.
- c. Randy also said that, per the conditions of the MOA, the Cities would need to approve the proposed land-use changes, that Hill Air Force Base would need to approve the proposed new base access location, and that UTA would need to approve the proposed transit improvements.

2. Next Steps

- a. Review the bicycle mode share assumptions with Shauna Burbidge.
- b. Review the travel demand modeling assumptions (UDOT and Coalition).
- c. Review land-use assumptions with WFRC and the local development community to determine whether land-use assumptions are reasonable (UDOT and Coalition).
- d. Begin the process of seeking City approval for proposed land-use changes; for example, redevelopment areas, socioeconomic data changes, and innovative intersection types and locations (UDOT and Coalition).
- e. Request approval from UTA for proposed transit improvements that are part of the Shared Solution Alternative (UDOT and Coalition).
- f. Request approval from Hill Air Force Base for proposed new access to the base.
- g. Provide update to stakeholders (UDOT).
- h. Verify the ramp metering scripts and modeling assumptions (UDOT and Coalition).

3. Workshop 6 on December 18, 2014

- a. The group also discussed and drafted the agenda for the planned December 18, 2014, workshop.
- b. Randy said that he would provide the draft agenda for the Coalition to review prior to sending it out to the workshop attendees.
- c. UDOT agreed to provide maps and handouts to help facilitate the discussions at the workshop.

2.7 Workshop 6: Preliminary Level 1 Screening Results for the Shared Solution Alternative

The purpose of this meeting was to review the proposals, assumptions, and preliminary Level 1 screening results for the draft Shared Solution Alternative with agencies and local Cities and Counties. An annotated map of the draft Shared Solution Alternative was posted on the WDC public website on November 11, 2014. At the meeting, UDOT and the Coalition presented the preliminary Level 1 screening results for the proposed Shared Solution Alternative. As stated during the meeting, the screening results were based on the draft alternative transportation investments, land uses, and modeling assumptions.

Date: December 18, 2014

Time: 2:00 PM to 5:00 PM

Location: West Point, Utah

Agenda: The agenda is included in Appendix H, Workshop 6 – Preliminary Shared Solution Alternative Modeling Results.

Attendees: The list of attendees is included in Appendix H. Attendees included representatives from UDOT, the Coalition, UTA, WFRC, and local Cities and Counties.

Meeting Summary

1. Dan Adams welcomed the group.
2. Randy Jefferies provided an overview of the purpose of the meeting and reviewed the WDC screening criteria.
 - a. After this, Randy provided an overview of the Shared Solution Alternative including the assumptions that went into modeling the alternative and the screening evaluation.
 - b. Randy then told the group that, with the aforementioned assumptions, the Shared Solution Alternative would pass Level 1 screening.
3. Randy said that the next step in the process would be to verify and clarify some of the assumptions that were used as part of the Shared Solution Alternative.
 - a. Land-use changes
 - b. Transit elements
 - c. Trail elements
 - d. Bicycle mode share assumptions
4. Ivan Hooper provided a summary of the land-use assumptions that are part of the Shared Solution Alternative. The group then discussed the results and assumptions.
 - a. Clearfield City said that many trucks still need to enter Freeport Center from Antelope Drive and that the proposed SR 193 truck bypass would get limited use since the roads inside Freeport Center are too narrow for many trucks. Mike Brown replied that Antelope Drive wouldn't be closed to trucks, but that he hoped the SR 193 truck bypass would prove to be an attractive alternative.

- b. Many other city representatives commented that many of these assumptions might be unrealistic and might not be supported by city councils or other elected officials.
 - c. Farmington City said they were worried that the Shared Solution Alternative might not get the support of every city planner.
 - d. Some Cities commented that private landowners and developers should also be allowed to provide comments on these proposed land-use changes.
 - e. Some Cities had concerns that utilities would need to be substantially upgraded to support the Shared Solution Alternative, and the Cities would have difficulty paying for the upgrades. These Cities thought the cost of the utility upgrades should be included in the cost of the Shared Solution Alternative. It was also said that the Cities would need to upgrade utilities for developments around the WDC. Randy said he would work with the WDC team to look into utility cost.
 - f. Farmington City said that the process was flawed and that the Shared Solution Alternative was not realistic.
 - g. Ted Knowlton from WFRC felt that the Shared Solution Alternative land use would need to be approved by each City's council in order to be approved in the WDC Project's Record of Decision. He said that, for the Mountain View Corridor Project, the Cities never approved the transit land use, and now the transit option in the Record of Decision is not reasonable and not supported by UTA.
5. Randy told the group that UDOT and the Coalition would be coming to meet with each of the Cities individually to discuss the proposed land-use changes. The group discussed the information that would be helpful to provide to the Cities in the information packet:
 - a. Assumptions methodology
 - b. Existing land uses by city compared to proposed Shared Solution Alternative land use
 - c. Planned/master plan land uses by city compared to proposed Shared Solution Alternative land use
 - d. Breakout of proposed Shared Solution Alternative land use changes by city, including the number of homes and commercial development.
 - e. Boulevard cross-sections
 - f. Innovative intersection descriptions/locations
 - g. Trail alignments
 - h. Information about the performance of local arterial roads through each city with the Shared Solution Alternative (on specific roads in addition to regional information)
6. Randy said that the Cities would be asked to review the proposed land-use changes and provide comments to UDOT about whether the proposed land-use changes are reasonable, are likely to occur, and would be supported by the Cities if the Shared Solution Alternative transportation improvements are constructed.
 - a. The group provided comments and feedback suggesting that this could take a long time (2+ years) and should go through the city councils and elected officials.
 - b. The group also said that, if these land uses were to go forward, they should go through the normal city land-use public review and involvement processes.

c. Other comments suggested that the Shared Solution Alternative seems to circumvent the normal transportation planning process with WFRC, UDOT, and the Cities and the local land-use planning processes that have been developed over many years.

7. Following a break, Mike Brown reviewed the transit projects and assumptions that were part of the Shared Solution Alternative and highlighted the BRT projects and transit fare reductions that were proposed. Mike discussed the \$50 transit pass/Hive Pass. UTA said that the pass currently goes for \$200, and the difference in fares would have to be made up by local governments some other way. UDOT stated that no way has been identified to pay for these transit subsidies.
8. Randy and Roger discussed the trail concepts proposed as part of the Shared Solution Alternative. Roger described the trails as being separate facilities from the roadways with dedicated real estate and right-of-way. Roger said that they would be, in most cases, at least a parcel or block away from the boulevards and that they would be designed for attractiveness and safety. Randy said that the preliminary modeling had showed a much higher percentage of bicycle and pedestrian trips than what has ever been documented in Utah, and that UDOT and the Coalition would be reviewing these assumptions to determine whether they are realistic. Randy also said that more-detailed information about the locations and scope of the trails would be identified.
9. Randy said that UDOT and the Coalition would be meeting with the Cities to discuss the locations, types, and designs for the innovative intersections that are proposed at the nodes.

Action Items

- Innovative intersection types, locations, and designs.
- Begin preliminary roadway, transit, and trail design and begin to measure impacts and costs for the improvements proposed as part of the Shared Solution Alternative.
- Prepare land-use packets for city review.
- Prepare Shared Solution Alternative transit information for UTA review and approval.
- Finalize, and update if appropriate, any modeling assumptions for travel demand modeling/Level 1 screening.
- Re-run Level 1 screening criteria for the Shared Solution Alternative.
- If the Shared Solution Alternative passes Level 1 screening, complete Level 2 screening for Shared Solution Alternative.
- Next Shared Solution workshop is likely in February or later in 2015.
- UDOT will try to schedule city meetings in January 2015.
- EIS schedule will depend on the results of the Shared Solution Alternative screening process.

2.7.1 Workshop 6A: Small-Group Workshop 18

Date: December 22, 2014

Time: 3 PM to 5 PM

Location: Assist Utah, Salt Lake City, Utah

Agenda: Discuss Workshop 6 and next steps for evaluating the Shared Solution Alternative.

Attendees: Attendees were Randy Jefferies (UDOT), Ann Floor (Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), and Kevin Kilpatrick (HDR).

Meeting Summary

The group discussed the following topics:

1. Workshop Discussion

- a. The group said that future meetings with the Cities would need to clearly describe to the Cities what is being proposed. The group noted that there was a lot of confusion at Workshop 6.
- b. The group thought that it had been a good discussion with some good feedback, although some of the information said by some of the participants might not have been accurate.

2. Land Use Feedback

- a. City feedback
 - i. Randy said that Syracuse City had already invited UDOT and the Coalition to attend its combined City Council and Planning Commission meeting on January 20, 2015. Randy recommended that the group try to meet with Syracuse City staff the prior week (around January 15) if possible prior to the January 20 meeting.
 - ii. Randy said that he hoped to schedule other city meetings in January.
 - iii. Materials for Cities
 - 1) Overlay of Shared Solution Alternative redevelopment parcels on the Cities' future land-use maps
 - 2) Summary data showing the amount and types of redevelopment in each city
 - iv. The group discussed, and Randy drafted, city approval language that could be provided with the city information packet. Randy said that he would send this draft language out to the Coalition for review and edits prior to sending it to the Cities.
- b. Developer feedback
 - i. Roger noted Dan Lofgren from Cowboy Partners and Steven James from Daybreak as two developers to invite to a developer meeting.
 - ii. Randy said that he would also like to invite some of the big developers in Davis and Weber Counties. He said that Brian Bayless from PRI had attended some Shared Solution Alternative meetings and would be someone good to invite.
 - iii. The group thought it would be good to get a mix of single-family residential, multi-family residential, mixed-use, and commercial developers to attend if possible.

- 1 3. Randy said that he planned to work with the Coalition to obtain formal UTA approval for the
2 proposed transit projects in the Shared Solution Alternative.
- 3 4. Randy asked Roger whether the Coalition was done reviewing the traffic modeling files. Roger
4 said that Norm Marshall had the files, but Roger had not heard anything final from Norm yet.
5 Randy asked Roger to send him any comments from Norm or Mike Brown as soon as they are
6 available so that the comments can be addressed.

7 ***Action Items***

- 8 • Randy will send draft approval language to Roger for review. The Coalition will review it and
9 provide UDOT with any edits.
- 10 • The Coalition will begin looking at innovative intersection locations and types (large scroll plot
11 maps and dimensional considerations were left with the Coalition).
- 12 • UDOT will contact the Cities to obtain future land-use files and will compile information packets
13 for each City describing the proposed Shared Solution Alternative land-use changes.

3.0 Alternative-Refinement Process for the Draft Shared Solution Alternative

After developing the draft Shared Solution Alternative and presenting it to the Cities and other stakeholders in Workshop 6, UDOT and the Coalition undertook an alternative-refinement process to validate the assumptions that were part of the draft Shared Solution Alternative.

This refinement process included internal meetings to refine the alternative's land-use and transportation improvement assumptions based on input from Workshop 6 (summarized in Section 3.1, Alternative-Refinement Internal Meetings), refinement of modeling assumptions and transportation investments by the Coalition, meetings with the Cities to present the Shared Solution Alternative's land-use assumptions to determine whether the land uses were reasonable to each City (summarized in Section 3.2, City Land-Use Meetings), and a market analysis of the Shared Solution Alternative land-use assumptions (summarized in Section 3.3, Market-Based Evaluation of Shared Solution Alternative Land-Use Plan).

The purposes of this process were to validate the assumptions for the draft Shared Solution Alternative presented at Workshop 6 and to develop the final Shared Solution Alternative for Level 1 screening.

3.1 Alternative-Refinement Internal Meetings

3.1.1 Alternative-Refinement Meeting 1, Small-Group Workshop 19

Date: January 13, 2015

Time: 10 AM to 12 PM

Location: HDR Engineering, Salt Lake City, Utah

Agenda: Review materials for Shared Solution city land-use packets and the agenda for the meeting with Syracuse City.

Attendees: Attendees were Renae Widdison (Shared Solution Coalition), Don Lever (Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), Ivan Hooper (Avenue Consultants), Vince Izzo (HDR), and Kevin Kilpatrick (HDR).

Meeting Summary

The group discussed the following topics:

1. Changes to Innovative Intersections in the Shared Solution Alternative

- a. After reviewing the model output, the group said that 11 of the 22 previously proposed innovative intersections were unnecessary, and that five other areas should have innovative intersections. The group will update the Shared Solution Alternative to have the following elements:
 - i. 11 activity centers (nodes) with innovative intersections at
 - ii. 11 activity centers (nodes) without innovative intersections
 - iii. 5 new innovative intersections that will not have activity centers (nodes)

1 **2. Changes to Roadway Improvements in the Shared Solution Alternative**

- 2 a. Change SR 193 to not have a six-lane cross-section and truck bypass. The Shared Solution
3 Alternative will include an innovative intersection at the SR 193/SR 126 intersection.
- 4 b. The Antelope Drive six-lane cross-section will be reduced and will be between Woodland
5 Park Drive and the west side of the Main Street (SR 126) intersection. A new innovative
6 intersection will be proposed at 1000 East.
- 7 c. Include proposed travel demand management (TDM) improvements for all interchanges on
8 I-15.

9 **3. Changes to the Shared Solution Alternative in Syracuse**

- 10 a. 2000 West/Antelope Drive and 1000 West/Antelope Drive will no longer be innovative
11 intersections.
- 12 b. NOTE: No changes were identified for the proposed Shared Solution Alternative land uses in
13 Syracuse.

14 **4. Syracuse City Meeting**

- 15 a. The group discussed the draft files and thought they were suitable for the meeting on
16 Thursday, but that it would likely take some effort to discuss the information. The Coalition
17 will prepare a cover letter, update the map of the Shared Solution Alternative, and update the
18 boulevard cross-section figures.
- 19 b. The WDC team will update the figures and tables and prepare digital and hard copies of the
20 files for the meeting.
- 21 c. The WDC team will draft an agenda for the meeting and send it to the Coalition for review.
- 22 d. The WDC team will bring copies of the volume/capacity maps to the meeting.

23 ***Action Items***

- 24 • The Coalition will prepare a cover letter, update the map of the Shared Solution Alternative, and
25 update the boulevard cross-section figures.
- 26 • The WDC team will update the figures and tables and prepare digital and hard copies of the files
27 for the meeting.
- 28 • The WDC team will draft an agenda for the meeting and send it to the Coalition for review.
- 29 • The WDC team will send a copy of the WFRC letter on land use, if it's available.

3.1.2 Alternative-Refinement Meeting 2, Small-Group Workshop 21

Date: January 21, 2015

Time: 2 PM to 4:30 PM

Location: HDR Engineering, Salt Lake City, Utah

Attendees: Attendees were Renae Widdison (Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), Ivan Hooper (Avenue Consultants), Randy Jefferies (UDOT), and Kevin Kilpatrick (HDR).

Meeting Summary

Topics discussed at this meeting included:

1. Coalition Comments on the Shared Solution Modeling Process

- a. Mike Brown emailed comments regarding how the innovative intersections were modeled and said that the group might want to adjust them to account for an improvement in traffic on the cross-streets as well as the major streets at the innovative intersections.
- b. The Coalition agreed to send to UDOT a letter along with a map stating that the Coalition does not have any more comments on the preliminary modeling effort.

2. City Presentations

- a. The group discussed the Syracuse City presentation and information packets provided to the City.
- b. The group agreed to add caveats and assumptions to the boulevard typical sections and the Level 1 screening results files that are part of the city data packets.
- c. The group agreed to add to the city data packets a reference table for the Shared Solution land-use designations and regional maps showing the changes in households and employment for the traffic analysis zones.
- d. The next two city meetings are Kaysville City on January 26 and Layton City on January 27.
- e. Ivan and Roger will provide Kevin with information for the packets, and Kevin will compile the information and print copies for the meetings.

3. Boulevard Access Lane Locations and Innovative Intersection Types and Locations

- a. The group began discussing the locations for boulevard access lanes and innovative intersections.
- b. The Coalition said that they would like more information about the existing right-of-way along the boulevards and the feedback from UDOT's design engineers on the typical section widths before making final decisions about these items. UDOT agreed to provide this information to the Coalition.
- c. The group had preliminary discussions about intersections and boulevards.
 - i. Hill Field Road and Main Street (SR 126)
 - 1) UDOT is planning a project to do thru-turns on three of the four legs of the intersection (both legs of SR 126 and the western leg of Hill Field Road).
 - 2) No multi-way boulevards in this area.

- ii. Kaysville 200 North and Main Street
 - 1) Quadrant intersections on the northwest and southeast quadrants using existing roads
 - 2) Multi-way boulevards on 200 North between 200 West and 100 East
- iii. Gentile Street and SR 126 (Main Street)
 - 1) Thru-turn intersections on both legs of SR 126
 - 2) Multi-way boulevard on SR 126
- iv. Antelope Drive and SR 126 (Main Street)
 - 1) Quadrants on northwest and southeast quadrants
 - 2) Multi-way boulevard on both legs of SR 126 and east leg of Antelope Drive

Action Items

- The Coalition will send to HDR letters for other Cities for inclusion in the city packets.
- The Coalition will send to UDOT its review of the model and updated map.

3.1.3 Alternative-Refinement Meeting 3, Small-Group Workshop 22

Date: February 13, 2015

Time: 9:30 AM to 12:45 PM

Location: HDR Engineering, Salt Lake City, Utah

Attendees: Attendees were Renae Widdison (Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Don Lever (Shared Solution Coalition), Jayson Cluff (Horrocks), Ivan Hooper (Avenue Consultants), Randy Jefferies (UDOT), Vince Izzo (HDR), and Kevin Kilpatrick (HDR).

Meeting Summary

Topics discussed at this meeting included:

1. **Upcoming City Meeting Schedule Review**
 - a. West Haven City on February 18, 2015 at noon
 - b. Roy City on February 18, 2015 at 2 PM
 - c. Hooper City on February 20, 2015 at 2 PM
2. **Farmington Land-Use Changes**
 - a. Changes to the Shared Solution Alternative in Farmington were discussed. The group decided on the following changes:
 - i. TC-1 node at US 89 and Main Street (no innovative intersection).
 - ii. TC-1 node at Park Lane and Main Street (no innovative intersection).
 - iii. No boulevard on Main Street south of US 89.
 - iv. No boulevard west of I-15 in Farmington.
 - v. No BC-2 redevelopment areas west of I-15 in Farmington.
 - vi. Resize the SC-3 redevelopment areas to be on top of the parking lot in Station Park.



- vii. Make two new larger, contiguous redevelopment parcels by the US 89 and Park Lane nodes on Main Street.
 - viii. Use updated Farmington land-use data as baseline condition.
- b. Hope to have updated packets available by Wednesday, February 18, 2015.

3. Map Revisions for the Shared Solution Alternative

- a. Renae noted various changes to the trail network that had been updated since the previous version of the map.
- b. The group said that I-15 interchange improvements wouldn't be proposed as part of Shared Solution Alternative.
- c. The group decided to move the BRT route to 1000 East on Antelope Drive instead of proposing a new bridge in Freeport Center.
- d. The 1600 North overpass is currently being planned by UDOT and Layton City. This won't be included in future versions of the Shared Solution Alternative.
- e. Antelope Drive is currently planned to be improved to have six travel lanes. This won't be included in future versions of the Shared Solution Alternative.
- f. Thru-turns and additional capacity are currently being planned by UDOT for Hill Field Road. This won't be included in future versions of the Shared Solution Alternative.
- g. Ramp metering
 - i. The group discussed to decide how to calculate the additional benefit of the ramp metering proposed by the Shared Solution Alternative.
 - ii. Randy said that UDOT is planning some ramp metering and that the Shared Solution Alternative should get credit for only the additional benefit of the ramp metering proposed beyond what UDOT is already planning.
 - iii. Mike agreed that this needed to happen but was not sure about how to accurately account for this.
 - iv. The group agreed to further discuss this issue.
- h. Hill Air Force Base 200 South gate – limit to allow only about 5,000 vehicles per day instead of 17,000 vehicles per day.
- i. 300 North – assume this will be only a two- to three-lane boulevard, not a four-lane boulevard, since 300 North is not planned to be widened in the 2040 RTP.
- j. New trail on 2000 West.
- k. The Coalition said they would update the map and provide it to UDOT by Tuesday, February 17.

4. Innovative Intersections

- a. Mike Brown provided UDOT and the WDC team with a kmz file that showed concepts for the innovative intersections for the Shared Solution Alternative. The group reviewed these quickly.
- b. Renae said that an updated table would be coming for these intersections on Tuesday, February 18.
- c. Randy said that the UDOT/WDC team engineers would work off of Mike's kmz file to make a first draft of the design for these intersections.

Action Items

- The Coalition will update the map and provide it to UDOT by Tuesday, February 17.
- The Coalition will provide updated list/table of innovative intersections and access lane locations.
- Horrocks will run modeling analyses to account for effects of Antelope Drive and Hill Field Road projects on the No-Action, build, and Shared Solution Alternatives.

3.1.4 Alternative-Refinement Meeting 4, Small-Group Workshop 23

Date: February 25, 2015

Time: 9:00 AM to 12:30 PM

Location: HDR Engineering, Salt Lake City, Utah

Attendees: Attendees were Mike Brown (Metro Analytics/Shared Solution Coalition), Jayson Cluff (Horrocks), Mike Seeley (Horrocks), Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), and John Blumenkamp (HDR).

Meeting Summary

The purpose of the meeting was to review and refine the Shared Solution Alternative's innovative intersection types and locations. Mike Brown provided a table that showed the latest draft innovative intersection types and locations. The group used this as a starting point but made a few refinements. Table 2 summarizes the innovative intersections that were discussed, the locations, and the intersection types proposed during the meeting.

Action Items

- UDOT will send out an updated kmz file of innovative intersection locations and types.
- The Coalition will review the proposed innovative intersections and send UDOT a letter or email supporting these, noting any changes that need to be made.
- The Coalition will prepare a kmz file or list of access lane locations and provide this to UDOT.
- The Coalition will prepare a list of engineering design questions on which it needs input from UDOT.

Table 2. Shared Solution Innovated Intersections

Intersection	Type	Description and Notes
200 North/Main Street (Kaysville)	Quadrant	<ul style="list-style-type: none"> Westbound (WB) 200 North to southbound (SB) Main Street: uses 100 East and 100 North as quadrant Eastbound (EB) 200 North to northbound (NB) Main Street: uses 200 West as quadrant NB Main Street to WB 200 North: uses 100 North and 200 West as quadrant No quadrant for SB Main left turn movements
Gentile Street/Main Street (Layton)	Quadrant	<ul style="list-style-type: none"> NB Main Street to WB Gentile Street: uses Church Street as quadrant SB Main Street to EB Gentile Street: uses Church Street and a new quadrant road in the northeast (NE) quadrant No quadrant for EB or WB Gentile Street left-turn movements
Antelope Drive/University Park Blvd. (Layton)	Thru-turn	<ul style="list-style-type: none"> EB Antelope Drive to NB Main Street: uses thru-turn on Antelope Drive between University Park Blvd. and Woodland Park Drive NB University Park Blvd. to WB Antelope Drive: uses thru-turn on University Park Blvd. between Antelope Drive and 2100 North SB University Park Blvd. to EB Antelope Drive: uses thru-turn on University Park Blvd. between Antelope Drive and 1800 North No thru-turn movement for WB Antelope Drive left-turn movements
Antelope Drive/Main Street (SR 126) (Clearfield/Layton)	Quadrant	<ul style="list-style-type: none"> WB Antelope Drive to SB Main Street: uses new quadrant road that connects to 1700 West and stays on north side of car dealership in southeast (SE) quadrant. Tie in 1960 North to new quadrant road at a T-intersection EB Antelope Drive to NB Main Street: uses new quadrant road in northwest (NW) quadrant SB Main Street to EB Antelope Drive: uses new quadrant road behind Kmart in NE quadrant No quadrant for NB Main Street left-turn movements to WB Antelope Drive
Antelope Drive/1000 East (Clearfield/Layton)	Quadrant	<ul style="list-style-type: none"> EB Antelope Drive to NB 1000 East: uses new quadrant road in NW quadrant WB Antelope Drive to SB 1000 East: uses three right turns on new quadrant road in NW quadrant No quadrant for NB or SB 1000 East left-turn movements
1000 East/Main Street (SR 126) (Clearfield)	Quadrant	<ul style="list-style-type: none"> SB 1000 East to SB Main Street: uses new quadrant road (about 1450 South) in SE quadrant NB 1000 East to NB Main Street: uses Pratts Street as quadrant road in NW quadrant SB Main Street (SR 126) to NB 1000 East: uses Pratts Street as quadrant road in NW quadrant NB Main Street (SR 126) to SB 1000 East: uses new quadrant road (about 1450 South) in SE quadrant
1000 East/SR 193 (Clearfield)	Thru-turn	<ul style="list-style-type: none"> WB SR 193 to SB 1000 East: uses thru-turn on SR 193 between 1000 East and 800 East No thru-turn movements for any of the other three movements at this intersection
SR 193/State Street (SR 126)	Quadrant	<ul style="list-style-type: none"> EB SR 193 to NB State Street: uses new quadrant road (parts of Depot Street and 5500 South) in NW quadrant WB SR 193 to SB State Street: uses new quadrant road on SE quadrant. Realign 550 East to the south at State Street No quadrant for NB or SB State Street left-turn movements

Table 2. Shared Solution Innovated Intersections

Intersection	Type	Description and Notes
650 North/State Street (SR 126) (Clearfield)	Quadrant	<ul style="list-style-type: none"> SB I-15 off ramp and WB 650 North to SB State Street: uses a new quadrant road and part of 500 North on SE quadrant (see Valley Fair Mall example) Try to merge NB I-15 ramp traffic heading to SB State Street with quadrant traffic No quadrant for any of the other three left-turn movements at this intersection
1800 North/Main Street (SR 126) (Sunset)	Thru-turn	<ul style="list-style-type: none"> SB Main Street to EB 1800 North: uses thru-turn on Main Street between 1800 North and 1600 North WB 1800 North to SB Main Street: uses thru-turn on 1800 North between Main Street and 250 West No quadrant for NB Main Street or EB 1800 North left-turn movements
1800 North/2000 West (SR 108) (Clinton)	Quadrant	<ul style="list-style-type: none"> NB 2000 West to WB 1800 North: uses new quadrant road on southwest (SW) quadrant SB 2000 West to EB 1800 North: uses existing shopping center roads (about 1900 North and 1850 West) in NE quadrant as quadrant roads No quadrant for EB or WB 1800 North left-turn movements
5600 South/1900 West (SR 126) (Roy)	Quadrant	<ul style="list-style-type: none"> WB 5600 South and SB I-15 off ramp to SB 1900 West: uses new quadrant road in SE quadrant (see Valley Fair Mall example) EB 5600 South to NB 1900 West: uses 2000 West and 5450 South as quadrant roads in NW quadrant NB 1900 West to WB 5600 South: uses 5700 South and new quadrant road near 2000 West in SW quadrant No quadrant for SB 1900 West to EB 5600 South left-turn movements
SR 108 (Midland Drive)/4800 South (West Haven and Roy)	Quadrant	<ul style="list-style-type: none"> NB SR 108 to WB 4800 South: uses new quadrant road on SW quadrant. Quadrant road connects to Midland Drive first SB 3500 West and SB SR 108 to EB 4800 South: uses new quadrant road and 3350 West in NE quadrant No quadrant for EB or WB 4800 South left-turn movements
SR 108 (Midland Drive)/4000 South (West Haven and Roy)	Quadrant	<ul style="list-style-type: none"> EB 4000 South to NB SR 108: uses new quadrant road in NW quadrant WB 4000 South to SB SR 108: uses new quadrant road in SE quadrant. Will need to cul-de-sac 2725 West and make new connection to quadrant road No proposed quadrant roads for NB or SB SR 108 left-turn movements. Optional alignments are proposed to Cities
SR 108 (Midland Drive)/SR 126 (1900 West) (West Haven)	Quadrant	<ul style="list-style-type: none"> EB SR 108 to NB SR 126: uses new quadrant road in NW quadrant WB SR 108 to SB SR 126: uses new quadrant road in SE quadrant No proposed quadrant roads for NB or SB SR 126 left-turn movements. Optional alignments are proposed to Cities

3.1.5 UTA Shared Solution Transit Proposals Meeting

Date: May 7, 2015

Time: 2:30 PM to 4:00 PM

Location: UTA, Salt Lake City, Utah

Attendees: Attendees were Kerry Doane (UTA), Hal Johnson (UTA), Renae Widdison (Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Jayson Cluff (Horrocks), Randy Jefferies (UDOT), Dan Adams, (Langdon Group), Vince Izzo (HDR), and Kevin Kilpatrick (HDR).

Meeting Summary

Topics discussed at this meeting included:

1. Shared Solution Alternative Overview

- a. After introductions, Randy reviewed the development and refinement process for the Shared Solution Alternative to the group. Randy said that the purpose of the meeting was to review the packet that had been provided to UTA the previous week and that showed the transit projects proposed as part of the Shared Solution Alternative.

2. Shared Solution Alternative Transit Packet Review

- a. The group reviewed the materials in the packet. Hal Johnson from UTA said that all of the transit projects shown in the packet were conceptually consistent with the current RTP proposed transit projects and that these projects were also on UTA's 5-year service plan and were UTA's highest-priority projects in Davis and Weber Counties. Hal said that the ridership numbers seemed reasonable and showed that the projects could have merit. The group discussed the FrontRunner ridership, noting it was strange that the FrontRunner ridership increased without the subsidized transit pass. Hal said that FrontRunner is the most elastic route in UTA's system.
- b. Hal and Kerry both said that the transit projects shown in the packet were conceptually consistent with the RTP but would require new investments and additional funding which is not currently guaranteed. Kerry said that UTA would need WFRC to include the projects on the long-range plans in order for the projects to get approved and implemented. Hal and Kerry said that any new or modified project would still be subject to UTA's project-development process, which would consider ridership demand, station locations, funding, environmental impacts, and other considerations before UTA selected a final, preferred alternative.
- c. With these caveats, Hal and Kerry said that UTA could informally answer yes to questions 1, 2, 3, 5, and 6 in the packet.
- d. The group also discussed question 4, which asked whether UTA would implement a \$50 system-wide transit pass for Davis County residents and a \$50 FrontRunner transit pass for Weber County residents. Hal and Kerry said that UTA would support these passes, but UTA does not currently have the funding to pay for these passes, so the funding would need to come from some other source. Kerry said that the current \$200/month FrontRunner pass system allows UTA to contribute a 20% subsidy (\$40/month) if a local government or employer provides a 30% subsidy (\$60/month), leaving the user to pay the remaining 50%

1 (\$100/month). Kerry said that this could result in different ridership numbers compared to the
2 assumption of a user pass that costs \$50/month. The group reviewed the ridership numbers
3 and agreed that about 3,000 users would buy the pass because this is the increase in ridership
4 over users without the subsidy.

5 e. Hal also said that there is Congestion Mitigation and Air Quality Improvement (CMAQ) or
6 State Transportation Plan (STP) funding identified for a pedestrian and bicyclist overpass at
7 the Clearfield FrontRunner station and that this project appears to be moving forward.

8 f. The group also discussed other possible ways to pay for subsidized transit passes. Mike
9 Brown thought UDOT should be able to pay for this if it takes cars off of I-15. Randy and
10 Vince responded that this type of funding would require legislative action. Hal mentioned
11 that it might be possible to try this out as a pilot project with CMAQ or STP funds.

12 g. Hal said that UTA wouldn't likely support the use of bus transit in the roadway shoulder
13 during any time of the day because of safety concerns. He said that drivers wouldn't expect
14 buses in the shoulder, which could increase the potential for accidents. In addition, most
15 roads are not at high enough levels of congestion that using the shoulder would benefit
16 transit.

17 h. Kerry said that UTA would try to provide a formal response letter to UDOT and the Coalition
18 as soon as possible.

19 3. Next Steps

20 a. Randy said that UDOT would be updating the land-use, transit, and bicycle/pedestrian
21 assumptions for the Shared Solution Alternative based on the feedback it had received in the
22 last 2–3 months and then would rescreen the Shared Solution Alternative to see whether it
23 passes the WDC screening criteria.

24 *Action Items*

- 25 • UTA will send UDOT and the Coalition a formal response letter.

3.2 City Land-Use Meetings

Section 3.2 documents the meetings that were held with each of the Cities to discuss the proposed Shared Solution Alternative land-use changes in each city. Each City was asked to review the proposed Shared Solution Alternative land-use changes and provide a written response to the following two questions:

1. If the roadway, transit, and active transportation elements of the Shared Solution Alternative were to be implemented, does the City consider the 2040 land-use scenario described in the attached documents to be reasonable (practical or feasible from a technical and economic standpoint)?
2. Would the City consider incorporating the land-use scenario into its general plan or zoning map at the completion of UDOT's Environmental Impact Statement process if this alternative were ultimately selected?

Copies of the city review packets are included in Appendix L, City Land Use Packets.

3.2.1 Syracuse City Staff Meeting

Date: January 15, 2015

Time: 3 PM to 5 PM

Location: Syracuse City offices

Agenda: Review Shared Solution Alternative land-use assumptions for Syracuse.

Attendees: Attendees included representatives from the Shared Solution Coalition, UDOT, and Syracuse City.

Meeting Summary

The group discussed the following topics:

1. Overview and Purpose of the Meeting

- a. Randy Jefferies described the definition of a *reasonable alternative* and what is being requested of the City. He said that the formal request is on the letter provided by the Coalition. He emphasized that the only decision that UDOT and the Coalition are requesting from the City is regarding the land-use component of the Shared Solution Alternative. The group is not asking the City which alternative they prefer.

2. Shared Solution Alternative Overview

- a. The Coalition presented the components of the Shared Solution Alternative and said that it was based on the general concepts of Wasatch Choices 2040. The Coalition described the alternative as a more detailed concept of Wasatch Choices 2040. The proposed land uses and associated development would address the desires of both the aging population and the younger population to live in walkable communities, use transit, and have shorter commutes to work.
- b. The Coalition said that the boulevard road improvements proposed as part of the Shared Solution Alternative wouldn't widen the boulevards beyond the current right-of-way in most cases. The WDC team would work with the Cities to identify the appropriate right-of-way for

the boulevards. The Coalition also said that the two nodes in Syracuse wouldn't have innovative intersections.

- c. The Coalition said that the Shared Solution Alternative includes tree-lined boulevards and provided typical sections and renderings showing examples of what these boulevards could look like. Randy said that UDOT can currently pay for only a small amount of aesthetic treatments for a project and that the City would likely have to pay for the aesthetics and maintenance of any vegetation on any boulevards.

- d. Roger said that the Shared Solution Alternative passed Level 1 screening.

3. Shared Solution Alternative Land-Use Assumptions in Syracuse

- a. The group reviewed in detail the packet provided by the Coalition to Syracuse City. The Coalition said that some of the proposed land uses were similar to the current city plan. The attachments included:
 - i. Attachment 1: Shared Solution Alternative Map – updated January 15, 2015
 - ii. Attachment 2: Sample Shared Solution Alternative Boulevard Typical Sections
 - iii. Attachment 3: Draft Level 1 Screening Results for Shared Solution Alternative (December 2014)
 - iv. Attachment 4: Shared Solution Alternative Land-Use Modeling Assumptions and Methodology Memo
 - v. Attachment 5: Map of Proposed Shared Solution Alternative Redevelopment Areas in Syracuse (Figure 1)
 - vi. Attachment 6: Map of Syracuse Planned Land Uses for Proposed Redevelopment Areas (Figure 2)
 - vii. Attachment 7: Comparison Table for Proposed Shared Solution Land Use and Syracuse Planned Land Use
 - viii. Attachment 8: Shared Solution Land-Use Designations Reference Table
 - ix. Attachment 9: Comparison Maps for Households in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Syracuse
 - x. Attachment 10: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Syracuse
 - xi. Attachment 11: Comparison Maps for Employment in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Syracuse
 - xii. Attachment 12: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Syracuse
 - xiii. Attachment 13: Comparison Table for Households and Employment in 2009, in 2040 with WDC, and in 2040 with Shared Solution Alternative
- b. The group said that, with the Shared Solution Alternative land-use assumptions, Syracuse would have less housing and employment in 2040 compared to the current WFRC RTP. The group also said that the Shared Solution Alternative would moved housing out of the WDC study area into Bountiful and would move jobs into the study area, with most of the job increases in areas close to I-15. The group provided an overview of the land-use methodology and the maps and tables that were provided to Syracuse City to summarize these land-use

changes in Syracuse with the Shared Solution Alternative. Syracuse City said that their current general plan does not allow mixed-use development in most areas.

- c. The Coalition said that the mix of land uses and proposed infrastructure improvements should reduce the need for travel because more employment would be closer to households.
- d. Mayor Palmer asked whether any changes were proposed for Layton Parkway. The Coalition responded that no land-use changes are proposed in this area, but the Shared Solution Alternative does propose a three-lane extension of Layton Parkway from Bluff Road to 2700 West in Layton. The mayor was concerned that this extension would cause congestion on Bluff Road. The Coalition said that Bluff Road is proposed to be widened to three lanes as part of the Shared Solution Alternative and that modeling indicated that Bluff Road would operate well with the Shared Solution Alternative.
- e. Syracuse City said that they do not have the current utilities (water and sewer) to support the Shared Solution Alternative's proposed land uses and associated densities and that the current water pressure could not support multi-level buildings. A new water pressure pump would need to be installed. The City asked who would pay for the infrastructure improvements. UDOT said that they could not pay for the improvements.
- f. The group also discussed the transit and bicycle/pedestrian assumptions that were part of the Shared Solution Alternative. Randy said that the group is still verifying the transit assumptions with UTA.

Action Items

- Syracuse City requested the proposed density of residential uses for the areas of the city west of 2000 West with the Shared Solution Alternative.
- Syracuse City requested the number of bicycle/pedestrian trips and transit ridership numbers for the Shared Solution Alternative and WDC alternatives.
- Syracuse City requested the traffic volumes in the city for the Shared Solution Alternative and WDC alternatives. They noted that a level of service (LOS) C or V/C map with volumes would be helpful.
- Representatives from UDOT and the Coalition will attend the joint city council and planning commission meeting in Syracuse on January 20, 2015, at 6 PM.

3.2.2 Syracuse City Joint Planning Commission and City Council Work Session

Date: January 20, 2015

Time: 6 PM to 8 PM

Location: Syracuse City offices

Attendees: Attendees included Syracuse City Council, Syracuse Planning Commission, Syracuse Mayor, Syracuse City Manager, Syracuse City staff, and representatives from the Shared Solution Coalition and UDOT.

Meeting Summary

The group discussed the following topics:

1. Overview of the Shared Solution Alternative

- a. Renae Widdison provided a slideshow presentation for the group that detailed the components of the Shared Solution Alternative and the land-use changes proposed in Syracuse. Renae said that Antelope Drive and 2000 West were the two roads proposed to be boulevards with the Shared Solution Alternative.

2. Discussion on the Shared Solution Alternative

- a. Following the presentation, there was a question-and-answer session, and the group discussed various aspects of the Shared Solution Alternative. Randy Jefferies described the definition of a *reasonable alternative*, the current assumptions included with the Shared Solution Alternative, and what is being requested of the City. Randy said that, if the Shared Solution Alternative were to become the preferred alternative, UDOT would be proposing only the roadway improvements and that other proposed changes to transit, aesthetics, landscaping, land use, and trails would have to come from other funding sources (likely UTA, the Cities and Counties, and/or private landowners). He emphasized that the only decision that UDOT and the Coalition are requesting from the City is on the land-use component of the Shared Solution Alternative. The group is not asking the City which alternative they prefer.
- b. Members of the Syracuse City Council and Planning Commission generally said that Syracuse City hasn't previously embraced higher housing densities or mixed-use development. Members of the group expressed different opinions and concerns about the Shared Solution Alternative's proposals and assumptions. The group said that, with the Shared Solution Alternative land-use assumptions, Syracuse would have less housing and employment in 2040 compared to the current WFRC RTP. The group also discussed whether attracting the number of high-paying jobs assumed by the Shared Solution Alternative would be realistic, and whether the citizens of Syracuse would support the higher-density residential land uses or mixed-use developments.
- c. The group said that Syracuse City could have concerns with the water, sewer, and storm drain infrastructure needed to support higher-density development.

- d. Some members of the group said that the proposed densities were not greatly different from the current allowed densities in the City's current general plan and that more higher-paying jobs could be coming in the future with the planned SR 193 business/research park.
- e. The Coalition said that the mix of land uses and proposed infrastructure improvements should reduce the need for travel because more employment would be closer to households.

Action Items

- Syracuse City requested the WDC and Shared Solution Alternative assumed 2040 populations for Syracuse and how this compares to Syracuse's assumed build-out population.
- Syracuse City said that the current proposed Shared Solution Alternative and land-use densities are lower than those shown on the land-use designations file currently on UDOT's website. UDOT will look at this and consider updating this information if needed.

3.2.3 Kaysville City Staff Meeting

Date: January 26, 2015

Time: 11:30 AM to 12:30 PM

Location: Kaysville City offices

Agenda: Review Shared Solution Alternative land use assumptions for Kaysville.

Attendees: Mayor Steve Hiatt (Kaysville City), John Thacker (Kaysville City), Andy Thompson (Kaysville City), Lyle Gibson (Kaysville City), Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Mike Brown (Metro Analytics/Shared Solution Coalition), and Roger Borgenicht (UBET/Shared Solution Coalition).

Meeting Summary

The group discussed the following topics:

1. Overview and Purpose of the Meeting

- a. Randy described the definition of a *reasonable alternative* and what is being requested of the City. He said that the formal request is on the letter provided by the Coalition. He emphasized that the only decision that UDOT and the Coalition are requesting from the City is on the land-use component of the Shared Solution Alternative. The group is not asking the City which alternative they prefer.

2. Shared Solution Alternative Overview

- a. Roger Borgenicht and Mike Brown of the Coalition presented the components of the Shared Solution Alternative and said it was based on the general concepts of Wasatch Choices 2040. Mike's PowerPoint presentation highlighted the benefits of the Shared Solution Alternative and went through some of the roadway, transit, and land-use features of the Shared Solution Alternative.

3. Shared Solution Alternative Land-Use Assumptions in Kaysville

- a. Following Mike's presentation, the group reviewed and discussed the Shared Solution Alternative data packets that were provided to Kaysville City. The packet contained the following information:
 - i. Attachment 1: Shared Solution Alternative Map – updated January 15, 2015
 - ii. Attachment 2: Sample Shared Solution Alternative Boulevard Typical Sections and Innovative Intersections
 - iii. Attachment 3: Draft Level 1 Screening Results for Shared Solution Alternative (December 2014)
 - iv. Attachment 4: Shared Solution Alternative Land-Use Modeling Assumptions and Methodology Memo
 - v. Attachment 5: Map of Proposed Shared Solution Redevelopment Areas in Kaysville (Figure 1)
 - vi. Attachment 6: Map of Kaysville Planned Land Uses for Proposed Redevelopment Areas (Figure 2)
 - vii. Attachment 7: Comparison Table for Proposed Shared Solution Land Use and Kaysville Planned Land Use
 - viii. Attachment 8: Shared Solution Land-Use Designations Reference Table
 - ix. Attachment 9: Comparison Maps for Households in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Kaysville
 - x. Attachment 10: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Kaysville
 - xi. Attachment 11: Comparison Maps for Employment in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Kaysville
 - xii. Attachment 12: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Kaysville
 - xiii. Attachment 13: Comparison Table for Households and Employment in 2009, in 2040 with WDC, and in 2040 with Shared Solution Alternative
 - xiv. Attachment 14: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
 - xv. Attachment 15: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
- b. Mayor Hiatt said that there could be communication, political, and timing challenges with the Shared Solution Alternative land-use assumptions in Kaysville but said that Kaysville City would review the information and provide a response. Mayor Hiatt thanked the group for their time.
- c. Randy said that the group was happy to answer any questions or attend additional meetings with Kaysville City if the City thought this would be helpful in their review process.

3.2.4 Layton City Staff Meeting

Date: January 27, 2015

Time: 11:00 AM to 12:30 PM

Location: Layton City offices

Agenda: Review Shared Solution Alternative land-use assumptions for Layton.

Attendees: Mayor Bob Stevenson (Layton City), Kent Anderson (Layton City), Woody Woodruff (Layton City), Bill Wright (Layton City), Steve Garside (Layton City), Peter Matson (Layton City), Alex Jensen (Layton City), Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Mike Brown (Metro Analytics/Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), and Don Lever (Shared Solution Coalition).

Meeting Summary

The group discussed the following topics:

1. Overview and Purpose of the Meeting

- a. Randy described the definition of a *reasonable alternative* and what is being requested of the City. He said that the formal request is on the letter provided by the Coalition. He emphasized that the only decision that UDOT and the Coalition are requesting from the City is on the land-use component of the Shared Solution Alternative. The group is not asking the City which alternative they prefer.

2. Shared Solution Alternative Overview

- a. Roger Borgenicht of the Coalition provided an overview of the history, concepts, and intent behind the Shared Solution Alternative. Mike Brown of the Coalition presented the components of the Shared Solution Alternative. Mike said that it was based on the general concepts of Wasatch Choices 2040 and that was intended primarily to encourage future development and redevelopment in Layton toward Main Street and away from western Layton. Mike's PowerPoint presentation highlighted the benefits of the Shared Solution Alternative and went through some of the roadway, transit, and land-use features of the Shared Solution Alternative. The group had various questions about the transportation and land-use assumptions of the Shared Solution Alternative during the presentation. Layton City said that most of the city's current new development has been bigger single-family homes on smaller lots, not apartments or multi-family housing.

3. Shared Solution Alternative Land-Use Assumptions in Layton

- a. Following Mike's presentation, the group reviewed and discussed the Shared Solution Alternative data packets that were provided to Layton City. The packet contained the following information:
 - i. Attachment 1: Shared Solution Alternative Map – updated January 15, 2015
 - ii. Attachment 2: Sample Shared Solution Alternative Boulevard Typical Sections and Innovative Intersections
 - iii. Attachment 3: Draft Level 1 Screening Results for Shared Solution Alternative (December 2014)

- iv. Attachment 4: Shared Solution Alternative Land-Use Modeling Assumptions and Methodology Memo
 - v. Attachment 5: Map of Proposed Shared Solution Redevelopment Areas in Layton (Figure 1)
 - vi. Attachment 6: Map of Layton Planned Land Uses for Proposed Redevelopment Areas (Figure 2)
 - vii. Attachment 7: Comparison Table for Proposed Shared Solution Land Use and Layton Planned Land Use
 - viii. Attachment 8: Shared Solution Land-Use Designations Reference Table
 - ix. Attachment 9: Comparison Maps for Households in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Layton
 - x. Attachment 10: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Layton
 - xi. Attachment 11: Comparison Maps for Employment in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Layton
 - xii. Attachment 12: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Layton
 - xiii. Attachment 13: Comparison Table for Households and Employment in 2009, in 2040 with WDC, and in 2040 with Shared Solution Alternative
 - xiv. Attachment 14: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
 - xv. Attachment 15: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
- b. The group discussed the data packets and land-use assumptions. Kevin and Roger provided an overview of the packets and the information provided. Mayor Stevenson said that the recent housing demand in Layton has been for single-family homes and said he thinks that western Layton will continue to develop with or without the WDC's new-roadway alternatives or the Shared Solution Alternative. Layton City said they thought that some of the Shared Solution Alternative ideas and concepts were good but that a new highway and improved north-south mobility would still be needed. The City wondered whether there could be a hybrid of some of the Shared Solution Alternative concepts and the WDC. The Coalition responded that their intent is to remove the need for a new WDC highway by encouraging denser, mixed-use land uses closer to transit and existing roads.
 - c. Mayor Stevenson thanked the group for their time and said that he and the city staff would review the materials. Mayor Stevenson also thanked the Coalition for agreeing to attend the Layton City Council workshop on Thursday, January 29, 2015.
 - d. Randy said that the Coalition and the WDC team would be happy to answer any questions or attend additional meetings with Layton City if the City thought this would be helpful in their review process.

3.2.5 Layton City Council Meeting

Date: January 29, 2015

Time: 7:30 PM to 9:20 PM

Location: Layton City offices

Agenda: Review Shared Solution Alternative land-use assumptions for Layton.

Attendees: Mayor Bob Stevenson (Layton City), Kent Anderson (Layton City), Woody Woodruff (Layton City), Bill Wright (Layton City), Peter Matson (Layton City), Alex Jensen (Layton City), Joyce Brown (Layton City Council), Scott Freitag (Layton City Council), Jory Francis (Layton City Council), Tom Day (Layton City Council), Joy Petro (Layton City Council), Gary Crane (Layton City Attorney), Keri Benson (Clearfield City), Randy Jefferies (UDOT), Kevin Kilpatrick (HDR), Mike Brown (Metro Analytics/Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), and Ann Floor (Shared Solution Coalition).

Meeting Summary

The group discussed the following topics:

1. Overview and Purpose of the Meeting

- a. Randy described the definition of a *reasonable alternative* and what is being requested of the City. He said that the formal request is on the letter provided by the Coalition. He emphasized that the only decision that UDOT and the Coalition are requesting from the City is on the land-use component of the Shared Solution Alternative and the Shared Solution Alternative land-use assumptions in Layton. The group is not asking the City which alternative they prefer.

2. Shared Solution Alternative Overview

- a. Roger Borgenicht of the Coalition provided an overview of the history, concepts, and intent behind the Shared Solution Alternative. Mike Brown of the Coalition presented the components of the Shared Solution Alternative. Mike said that it was based on the general concepts of Wasatch Choices 2040 and was intended primarily to encourage future development and redevelopment in Layton toward Main Street and away from western Layton. Mike's PowerPoint presentation highlighted the benefits of the Shared Solution Alternative and went through some of the roadway, transit, and land-use features of the Shared Solution Alternative. Mike presented only about the first half of his presentation because of questions and discussion among the group.
- b. While Mike was going through his presentation, the group had many questions about the transportation and land-use assumptions of the Shared Solution Alternative. Layton City said that most of its current new development has been bigger single-family homes on smaller lots, not apartments or multi-family housing. Layton City said that previous attempts at mixed-use developments and apartments had not been publicly supported and in some cases had been overturned by referendum.
- c. The group discussed many of the land-use assumptions in Layton. Layton City Council members said that the Farmington Station didn't have much beyond retail jobs and had a relatively small residential component. Layton City Council members also said that they

1 thought there would continue to be a need for new roadway infrastructure in Layton and the
2 west Davis County area.

- 3 d. The group discussed some of the land-use assumptions in Layton. Bill Wright said that the
4 area designated as a Station Community assumes that there would be 10 times the number of
5 residential units as currently in the area and assumes there would be a much higher number of
6 office and retail jobs than there currently are. The council members said that previous
7 attempts at mixed-use zoning in Layton had not done very well and that there was generally
8 not a big market push or interest in very-high-density residential developments in the area.
- 9 e. Layton City said that congestion on Gentile Street and Gordon Avenue are currently big
10 transportation issues for Layton and that having a lot more dense development on Main Street
11 and Hill Field Road would likely not improve this situation.
- 12 f. Mike said that the Shared Solution Alternative land-use assumptions were a starting point and
13 that they might have been unrealistic. Mike said that he hoped that the Shared Solution
14 Alternative could be a pilot project and that state transportation funds that otherwise would
15 go to the WDC could be redirected to landscaping, aesthetics, land-use improvements, and
16 trail or transit projects.
- 17 g. The group also had a lengthy discussion about whether the market could support the land-use
18 assumptions in the Shared Solution Alternative. Layton City said that the land-use
19 assumptions involve big assumptions that a lot of third parties (for example, landowners,
20 developers, etc.) would need to take actions consistent with the Shared Solution Alternative
21 land-use assumptions. Layton City said that, because of private property rights and the
22 referendum process, the City and UDOT have very limited abilities to control or direct these
23 actions. Randy said that UDOT would be hiring RCLCO to study the market demand in the
24 area. Layton City said that they would like a copy of this information.
- 25 h. Mayor Stevenson thanked the group for their time and said that the City would review the
26 materials.

27 **3.2.6 Sunset City Staff Meeting**

28 **Date:** February 4, 2015

29 **Time:** 8:30 AM to 9:30 AM

30 **Location:** Sunset City offices

31 **Agenda:** Review Shared Solution Alternative land-use assumptions for Sunset.

32 **Attendees:** Mayor Beverly Macfarlane (Sunset City), Scott Stevenson (Sunset City), Randy Jefferies
33 (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Mike Brown (Metro Analytics/Shared Solution
34 Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), and Renae Widdison (Shared Solution
35 Coalition).

Meeting Summary

The group discussed the following topics:

1. Overview and Purpose of the Meeting

- a. Randy described the definition of a *reasonable alternative* and what is being requested of the City. He said that the formal request is on the letter provided by the Coalition. He emphasized that the only decision that UDOT and the Coalition are requesting from the City is on the land-use component of the Shared Solution Alternative. The group is not asking the City which alternative they prefer.

2. Shared Solution Alternative Overview

- a. Roger Borgenicht of the Coalition provided an overview of the history, concepts, and intent behind the Shared Solution Alternative. Renae Widdison highlighted how the Coalition has tried to incorporate the vision of Wasatch Choices 2040 into the Shared Solution Alternative. Mike Brown of the Coalition presented the components of the Shared Solution Alternative and said that it was intended primarily to encourage future development and redevelopment in Sunset around the SR 126 (Main Street) and 1800 North corridors, which are proposed to be boulevards as part of the Shared Solution Alternative. Mike's PowerPoint presentation highlighted the benefits of the Shared Solution Alternative and went through some of the roadway, transit, and land-use features of the Shared Solution Alternative. Roger concluded the presentation by emphasizing the benefits of the Shared Solution Alternative.

3. Shared Solution Alternative Land-Use Assumptions in Sunset

- a. Following Mike's presentation, the group reviewed and discussed the Shared Solution Alternative data packets that were provided to Sunset City. The packet contained the following information:
 - i. Attachment 1: Shared Solution Alternative Map – updated January 15, 2015
 - ii. Attachment 2: Sample Shared Solution Alternative Boulevard Typical Sections and Innovative Intersections
 - iii. Attachment 3: Draft Level 1 Screening Results for Shared Solution Alternative (December 2014)
 - iv. Attachment 4: Shared Solution Alternative Land-Use Modeling Assumptions and Methodology Memo
 - v. Attachment 5: Map of Proposed Shared Solution Redevelopment Areas in Sunset (Figure 1)
 - vi. Attachment 6: Map of Sunset Planned Land Uses for Proposed Redevelopment Areas (Figure 2)
 - vii. Attachment 7: Comparison Table for Proposed Shared Solution Land Use and Sunset Planned Land Use
 - viii. Attachment 8: Shared Solution Land-Use Designations Reference Table
 - ix. Attachment 9: Comparison Maps for Households in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Sunset
 - x. Attachment 10: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Sunset

- xi. Attachment 11: Comparison Maps for Employment in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Sunset
 - xii. Attachment 12: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Sunset
 - xiii. Attachment 13: Comparison Table for Households and Employment in 2009, in 2040 with WDC, and in 2040 with Shared Solution Alternative
 - xiv. Attachment 14: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
 - xv. Attachment 15: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
- b. The group walked through the data packets and land-use assumptions. The group discussed a few of the attachments. Scott Stevenson said that one of the areas identified for redevelopment is the RV dealership and said that, in his opinion, the RV dealership was unlikely to be redeveloping anytime soon. Scott also said that there might not be much market demand for mixed-use development along SR 126 and that he anticipated there being more market demand for commercial uses. Scott and Mayor Macfarlane said that the building sizes and densities seemed reasonable from Sunset City's standpoint. Scott said he hoped that the 1800 North/Main Street intersection could be an even bigger node than what is being proposed as part of the Shared Solution Alternative. Scott also said he thought that a quadrant intersection in the southwest quadrant of this intersection could be a good option. Scott said that a gas station would built soon on the northwest quadrant of 1800 North/Main Street, so this wouldn't be a good option.
- c. Mayor Macfarlane thanked the group for their time and efforts developing the alternative and said that she and the city staff would review the materials.
- d. Randy said that the Coalition and the WDC team would be happy to answer any questions or attend additional meetings with Sunset City if the City thought this would be helpful in their review process.

3.2.7 Clearfield City Staff Meeting

Date: February 4, 2015

Time: 10:30 AM to 11:30 AM

Location: Clearfield City offices

Agenda: Review Shared Solution Alternative land-use assumptions for Clearfield.

Attendees: Adam Lenhard (Clearfield City), Scott Hess (Clearfield City), J.J. Allen (Clearfield City), Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Brianne Olsen (Langdon Group), Mike Brown (Metro Analytics/Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), and Renae Widdison (Shared Solution Coalition).

Meeting Summary

The group discussed the following topics:

1. Overview and Purpose of the Meeting

- a. Randy described the definition of a *reasonable alternative* and what is being requested of the City. He said that the formal request is on the letter provided by the Coalition. He emphasized that the only decision that UDOT and the Coalition are requesting from the City is on the land-use component of the Shared Solution Alternative. The group is not asking the City which alternative they prefer.

2. Shared Solution Alternative Overview

- a. Roger Borgenicht of the Coalition provided an overview of the history, concepts, and intent behind the Shared Solution Alternative. Renae Widdison highlighted how the Coalition has tried to incorporate the vision of Wasatch Choices 2040 into the Shared Solution Alternative. Mike Brown of the Coalition presented the components of the Shared Solution Alternative and said that it was intended primarily to encourage future development and redevelopment in Clearfield around the SR 126 (Main Street) corridor and the Clearfield FrontRunner station. Mike's PowerPoint presentation highlighted the benefits of the Shared Solution Alternative and went through some of the roadway, transit, and land-use features of the Shared Solution Alternative.
- b. During the presentation, Clearfield City questioned whether the western Cities really had any intention of staying rural, as the Coalition was asserting in their presentation.
- c. The group also discussed the Farmington Station Park development and said that this is a destination area, not a pass-by or convenience development. The Clearfield City representatives thought that Farmington Station Park didn't qualify as a boulevard-style mixed-use development since it's a destination retail shopping mall.
- d. The group also said that the market might not support a lot more of these types of developments in western Davis County. Mike said that the Shared Solution Alternative is proposing a new bridge over the railroad tracks to connect Freeport Center to the UTA FrontRunner station. Mike also said that several innovative intersections are being proposed in Clearfield as part of the Shared Solution Alternative. Mike showed the proposed bus circulator route and said that it's the same as one previously studied, with the exception of the new bridge between Freeport Center and the FrontRunner station. Roger concluded the presentation by emphasizing the benefits of the Shared Solution Alternative.

3. Shared Solution Alternative Land-Use Assumptions in Clearfield

- a. Following Mike's presentation, the group reviewed and discussed the Shared Solution Alternative data packets that were provided to Clearfield City. The packet contained the following information:
 - i. Attachment 1: Shared Solution Alternative Map – updated January 15, 2015
 - ii. Attachment 2: Sample Shared Solution Alternative Boulevard Typical Sections and Innovative Intersections
 - iii. Attachment 3: Draft Level 1 Screening Results for Shared Solution Alternative (December 2014)

- iv. Attachment 4: Shared Solution Alternative Land-Use Modeling Assumptions and Methodology Memo
 - v. Attachment 5: Map of Proposed Shared Solution Redevelopment Areas in Clearfield (Figure 1)
 - vi. Attachment 6: Map of Clearfield Planned Land Uses for Proposed Redevelopment Areas (Figure 2)
 - vii. Attachment 7: Comparison Table for Proposed Shared Solution Land Use and Clearfield Planned Land Use
 - viii. Attachment 8: Shared Solution Land-Use Designations Reference Table
 - ix. Attachment 9: Comparison Maps for Households in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Clearfield
 - x. Attachment 10: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Clearfield
 - xi. Attachment 11: Comparison Maps for Employment in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Clearfield
 - xii. Attachment 12: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Clearfield
 - xiii. Attachment 13: Comparison Table for Households and Employment in 2009, in 2040 with WDC, and in 2040 with Shared Solution Alternative
 - xiv. Attachment 14: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
 - xv. Attachment 15: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
- b. The group walked through the data packets and land-use assumptions. The group discussed a few of the attachments.
 - c. Scott Hess said that Clearfield City is generally in favor of the types of developments described by the Coalition and said that Clearfield is the friendliest city in northern Davis County for multi-family residential development and mixed-use development. Scott said that the Clearfield General Plan already allows mixed-use developments in much of the city but noted that the densities being proposed by the Shared Solution Alternative might be more aggressive than what is currently allowed. Scott also said that Clearfield currently has only 20–25 acres of land available for future single-family residential development. Scott said he thought that the areas east of I-15 in Clearfield would likely remain strictly commercial with anchor tenants and wouldn't likely be converted to mixed-use developments. Scott emphasized that the biggest concern he had regarding the Shared Solution Alternative development was the market demand for it.
 - d. The group also discussed the membership in the Coalition and the goals and interests of the Coalition.
 - e. Adam said that, while Clearfield City sees the benefits of and is not generally opposed to the land-use types and ideas of the Shared Solution Alternative, they do have concerns about some of the transportation improvements and still see the need for a new road in western Davis County. Adam said that Clearfield City has seen direct benefits from Legacy Parkway and clearly sees the need for the WDC. Adam also said that there are many more pressing

transportation needs in Clearfield (for example, the SR 193 interchange and the 650 North interchange) than the boulevards and innovative intersections being proposed with the Shared Solution Alternative. Adam also said he thought that the Shared Solution Alternative is trying to circumvent the established land-use and transportation planning processes that are used to identify, evaluate, and prioritize public projects in Utah.

- f. The Coalition clarified the current Shared Solution Alternative assumptions in Clearfield, noting that a truck bypass on SR 193 is no longer being proposed and that the Coalition acknowledges that improvements to the I-15 interchanges are needed.
- g. The group discussed the tentative schedule for evaluating the Shared Solution Alternative and the WDC EIS process.
- h. Randy said that the Coalition and the WDC team would be happy to answer any questions or attend additional meetings with Clearfield City if the City thought this would be helpful in their review process.

3.2.8 Farmington City Staff Meeting

Date: February 5, 2015

Time: 9:00 AM to 10:00 AM

Location: Farmington City offices

Agenda: Review Shared Solution Alternative land-use assumptions for Farmington.

Attendees: Dave Millheim (Farmington City), Dave Peterson (Farmington City), Eric Anderson (Farmington City), Jeff Appel (Farmington City), Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Brianne Olsen (Langdon Group), Ann Floor (Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), and Renae Widdison (Shared Solution Coalition).

Meeting Summary

The group discussed the following topics:

1. Overview and Purpose of the Meeting

- a. Randy described the definition of a *reasonable alternative* and what is being requested of the City. He said that the formal request will be on the letter provided by the Coalition. He emphasized that the only decision that UDOT and the Coalition are requesting from the City is on the land-use component of the Shared Solution Alternative. The group is not asking the City which alternative they prefer.
- b. The group discussed the purpose of the meeting, with Dave Millheim clarifying with the Coalition that the land-use assumptions that are proposed as part of the Shared Solution Alternative are different from the land-use assumptions currently assumed as part of the WFRC and UDOT 2040 models.
- c. Jeff Appel asked why the Cities would have to approve these changes. Randy and the Coalition replied that the Cities would have to approve these changes because the modeling for the Coalition is assuming these changes and benefiting from them. Since the land uses are different than what is currently planned and assumed in the study area, this would represent a change that the Cities would need to support.

1 **2. Shared Solution Alternative Overview**

- 2 a. Roger Borgenicht of the Coalition provided an overview of the history, concepts, and intent
3 behind the Shared Solution Alternative. Renae Widdison highlighted how the Coalition has
4 tried to incorporate the vision of Wasatch Choices 2040 into the Shared Solution Alternative.
5 Renae presented a PowerPoint presentation detailing the components of the Shared Solution
6 Alternative and highlighted the proposed transportation and land-use changes in Farmington.

7 **3. Shared Solution Alternative Land-Use Assumptions in Farmington**

- 8 a. Following the presentation, the group reviewed and discussed the Shared Solution Alternative
9 data packets that were provided to Farmington City. The packet contained the following
10 information:
- 11 i. Attachment 1: Shared Solution Alternative Map – updated January 15, 2015
 - 12 ii. Attachment 2: Sample Shared Solution Alternative Boulevard Typical Sections and
13 Innovative Intersections
 - 14 iii. Attachment 3: Draft Level 1 Screening Results for Shared Solution Alternative
15 (December 2014)
 - 16 iv. Attachment 4: Shared Solution Alternative Land-Use Modeling Assumptions and
17 Methodology Memo
 - 18 v. Attachment 5: Map of Proposed Shared Solution Redevelopment Areas in Farmington
19 (Figure 1)
 - 20 vi. Attachment 6: Map of Farmington Planned Land Uses for Proposed Redevelopment
21 Areas (Figure 2)
 - 22 vii. Attachment 7: Comparison Table for Proposed Shared Solution Land Use and
23 Farmington Planned Land Use
 - 24 viii. Attachment 8: Shared Solution Land-Use Designations Reference Table
 - 25 ix. Attachment 9: Comparison Maps for Households in 2009 with 2040 WDC and 2009 with
26 2040 Shared Solution Alternative in Farmington
 - 27 x. Attachment 10: Comparison Maps for Households in 2040 with WDC and in 2040 with
28 Shared Solution Alternative (total change and %) in Farmington
 - 29 xi. Attachment 11: Comparison Maps for Employment in 2009 with 2040 WDC and 2009
30 with 2040 Shared Solution Alternative in Farmington
 - 31 xii. Attachment 12: Comparison Maps for Employment in 2040 with WDC and in 2040 with
32 Shared Solution Alternative (total change and %) in Farmington
 - 33 xiii. Attachment 13: Comparison Table for Households and Employment in 2009, in 2040
34 with WDC, and in 2040 with Shared Solution Alternative
 - 35 xiv. Attachment 14: Comparison Maps for Households in 2040 with WDC and in 2040 with
36 Shared Solution Alternative (total change and %) in Davis and Weber Counties
 - 37 xv. Attachment 15: Comparison Maps for Employment in 2040 with WDC and in 2040 with
38 Shared Solution Alternative (total change and %) in Davis and Weber Counties

- b. During the presentation, Farmington City representatives asked several clarifying questions about projects on the east side of I-15 in Layton, Kaysville, and Farmington. Renae responded that the projects were intended to improve the performance of the arterials on the east and west sides of I-15.
- c. The group also discussed the Shared Solution Alternative's proposed BRT route in Farmington. Farmington City said that they thought this could be a good idea.
- d. The group discussed the two main boulevards proposed by the Shared Solution Alternative in Farmington: Main Street (SR 273) and 1100 West.
- e. Farmington City proposed the following changes to the Shared Solution Alternative land-use assumptions and boulevards in Farmington:
 - i. Keep Main Street as a boulevard for the Shared Solution Alternative, but do not assume that there will be any mixed-use redevelopment on Main Street, with the exceptions of the Cherry Hill/US 89 area and the Park Lane/Main Street node area.
 - ii. Remove 1100 West as a boulevard for the Shared Solution Alternative. Remove any Shared Solution Alternative land-use development or redevelopment assumptions in this area. Farmington City stated that they were already assuming even higher development densities in this business park area west of I-15 than what is being proposed by the Shared Solution Alternative.
 - iii. Add two new town center nodes (TC-1B) without innovative intersections:
 - 1) One at the US 89/Main Street (Cherry Hill) intersection
 - 2) One at the Main Street/Park Lane intersection
- f. Farmington City said that they thought there would be a long-term transportation need to widen Main Street to five lanes.
- g. Farmington City said that higher-intensity redevelopment would likely occur on US 89 between Park Lane and Shepard Lane with or without the Shared Solution Alternative.
- h. Randy said that UDOT and the Coalition would revise the data packets for Farmington with these changes and then send them to Farmington City to review and provide comments.
- i. Farmington City said that the Farmington City Council had approved a resolution supporting evaluation of the Shared Solution Alternative this week and would submit a copy of this resolution to UDOT once it had been approved by the mayor.

3.2.9 Clinton City Staff Meeting

Date: February 9, 2015

Time: 9:00 AM to 10:15 AM

Location: Clinton City offices

Agenda: Review Shared Solution Alternative land-use assumptions for Clinton.

Attendees: Dennis Cluff (Clinton City Manager), Lynn Vinzant (Clinton City), Mitch Adams (Clinton City Mayor), Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Mike Brown (Metro Analytics/Shared Solution Coalition), Roger Borgenicht (UBET/Shared Solution Coalition), and Renae Widdison (Shared Solution Coalition).

Meeting Summary

The group discussed the following topics:

1. Overview and Purpose of the Meeting

- a. Randy described the definition of a *reasonable alternative* and what is being requested of the City. He said that the formal request is on the letter provided by the Coalition. He emphasized that the only decision that UDOT and the Coalition are requesting from the City is on the land-use component of the Shared Solution Alternative. The group is not asking the City which alternative they prefer.

2. Shared Solution Alternative Overview

- a. Roger Borgenicht of the Coalition provided an overview of the history, concepts, and intent behind the Shared Solution Alternative. Renae Widdison highlighted how the Coalition has tried to incorporate the vision of Wasatch Choices 2040 into the Shared Solution Alternative. Mike Brown of the Coalition presented the components of the Shared Solution Alternative and said that it was intended primarily to encourage future development and redevelopment in Clinton around the SR 108 (2000 West) and 1800 North corridors. Mike's PowerPoint presentation highlighted the benefits of the Shared Solution Alternative and went through some of the roadway, transit, and land-use features of the Shared Solution Alternative. Mike said that the Shared Solution Alternative is modeling a higher job-to-household ratio in the study area to help reduce the travel demand and lengths of trips in the study area. Roger concluded the presentation by emphasizing the benefits of the Shared Solution Alternative.

3. Discussion

- a. Clinton City said they were aware of mixed-use zoning, and previous zoning maps had mixed-use zoning in the areas currently planned to be PZ/commercial, but they had changed the zoning back to commercial based on feedback from citizens and property owners. Clinton City said that, when the zoning was mixed use, only residential and multi-family residential development was proposed by developers and property owners. Clinton City rezoned the area as PZ/commercial to ensure that at least some of the area would develop commercially.
- b. Clinton City officials said that residential demand was continuing in Clinton and other areas of western Davis and Weber Counties, and they didn't anticipate that this dynamic would be changing soon. Clinton City officials also said it was unlikely that the jobs currently in or planned to be in Salt Lake City or Ogden would relocate to Clinton or western Davis or Weber Counties, even if the boulevard concepts were implemented. Clinton City officials said that people currently buy houses in Clinton knowing that they will need to commute to Salt Lake City or Ogden to work. Clinton City officials stated that the mixed-use developments would be feasible only in some locations and for a small part of the population. Clinton City officials said that there have been more development proposals recently for patio (single-floor) single-family residential units to accommodate seniors who want to downsize.
- c. Clinton City officials also said that residents were generally in favor of more recreation facilities and bicycle trails but had not shown a willingness to raise taxes to pay for these amenities. City officials said that the proposals for landscaped boulevards and new trails would likely have a similar level of conceptual support that the citizens would likely be unwilling to pay for.

- d. Clinton City officials said that they are currently experiencing east-west and north-south traffic congestion issues and still see the need for additional north-south capacity in western Davis County. City officials said that the private development community is the ultimate decision-maker regarding what the market will allow, and that, so far, there hasn't been much demand for mixed-use development in Clinton. City officials said that their general plan had recently been updated in 2013 to reflect the most recent development demand and input from citizens.

4. Shared Solution Alternative Land-Use Assumptions in Clinton

- a. Following the Coalition's presentation and the discussion, the group reviewed and discussed the Shared Solution Alternative data packets that were provided to Clinton City. The packet contained the following information:
- i. Attachment 1: Shared Solution Alternative Map – updated January 15, 2015
 - ii. Attachment 2: Sample Shared Solution Alternative Boulevard Typical Sections and Innovative Intersections
 - iii. Attachment 3: Draft Level 1 Screening Results for Shared Solution Alternative (December 2014)
 - iv. Attachment 4: Shared Solution Alternative Land-Use Modeling Assumptions and Methodology Memo
 - v. Attachment 5: Map of Proposed Shared Solution Redevelopment Areas in Clinton (Figure 1)
 - vi. Attachment 6: Map of Clinton Planned Land Uses for Proposed Redevelopment Areas (Figure 2)
 - vii. Attachment 7: Comparison Table for Proposed Shared Solution Land Use and Clinton Planned Land Use
 - viii. Attachment 8: Shared Solution Land-Use Designations Reference Table
 - ix. Attachment 9: Comparison Maps for Households in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Clinton
 - x. Attachment 10: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Clinton
 - xi. Attachment 11: Comparison Maps for Employment in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Clinton
 - xii. Attachment 12: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Clinton
 - xiii. Attachment 13: Comparison Table for Households and Employment in 2009, in 2040 with WDC, and in 2040 with Shared Solution Alternative
 - xiv. Attachment 14: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
 - xv. Attachment 15: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
- b. The group walked through the data packets and land-use assumptions. The group discussed a few of the attachments.

- c. The group discussed the tentative schedule for evaluating the Shared Solution Alternative and the WDC EIS process. Randy said that UDOT and the Coalition are requesting feedback on the land-use proposals ideally by the end of February or early March.
- d. Randy said that the Coalition and the WDC team would be happy to answer any questions or attend additional meetings with Clinton City if the City thought this would be helpful in their review process.

3.2.10 West Point City Staff Meeting

Date: February 12, 2015

Time: 10:00 AM to 11:00 AM

Location: West Point City offices

Agenda: Review Shared Solution Alternative land-use assumptions for West Point.

Attendees: Kyle Laws (West Point City Manager), Boyd Davis (West Point City), Erik Craythorne (West Point City Mayor), Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Roger Borgenicht (UBET/Shared Solution Coalition), and Renae Widdison (Shared Solution Coalition).

Meeting Summary

The group discussed the following topics:

1. Overview and Purpose of the Meeting

- a. Randy described the definition of a *reasonable alternative* and what is being requested of the City. He said that the formal request is on the letter provided by the Coalition. He emphasized that the only decision that UDOT and the Coalition are requesting from the City is on the land-use component of the Shared Solution Alternative. The group is not asking the City which alternative they prefer.

2. Shared Solution Alternative Overview

- a. Roger Borgenicht of the Coalition provided an overview of the history, concepts, and intent behind the Shared Solution Alternative. Renae Widdison highlighted how the Coalition has tried to incorporate the vision of Wasatch Choices 2040 into the Shared Solution Alternative. Renae presented the components of the Shared Solution Alternative. Renae's PowerPoint presentation highlighted the benefits of the Shared Solution Alternative and went through some of the roadway, transit, and land-use features of the Shared Solution Alternative. Renae's presentation noted that 2000 West and 300 North were the primary redevelopment areas proposed in West Point. Roger concluded the presentation by emphasizing the benefits of the Shared Solution Alternative.

3. Discussion

- a. The group discussed 300 North and noted that it's not currently planned to be widened in the 2040 RTP. UDOT and the Coalition said that they would check this assumption in the traffic modeling.

1 **4. Shared Solution Alternative Land-Use Assumptions in West Point**

- 2 a. Following the Coalition's presentation and the discussion, the group reviewed and discussed
3 the Shared Solution Alternative data packets that were provided to West Point City. The
4 packet contained the following information:
- 5 i. Attachment 1: Shared Solution Alternative Map – updated January 15, 2015
 - 6 ii. Attachment 2: Sample Shared Solution Alternative Boulevard Typical Sections and
7 Innovative Intersections
 - 8 iii. Attachment 3: Draft Level 1 Screening Results for Shared Solution Alternative
9 (December 2014)
 - 10 iv. Attachment 4: Shared Solution Alternative Land-Use Modeling Assumptions and
11 Methodology Memo
 - 12 v. Attachment 5: Map of Proposed Shared Solution Redevelopment Areas in West Point
13 (Figure 1)
 - 14 vi. Attachment 6: Map of West Point Planned Land Uses for Proposed Redevelopment Areas
15 (Figure 2)
 - 16 vii. Attachment 7: Comparison Table for Proposed Shared Solution Land Use and West Point
17 Planned Land Use
 - 18 viii. Attachment 8: Shared Solution Land-Use Designations Reference Table
 - 19 ix. Attachment 9: Comparison Maps for Households in 2009 with 2040 WDC and 2009 with
20 2040 Shared Solution Alternative in West Point
 - 21 x. Attachment 10: Comparison Maps for Households in 2040 with WDC and in 2040 with
22 Shared Solution Alternative (total change and %) in West Point
 - 23 xi. Attachment 11: Comparison Maps for Employment in 2009 with 2040 WDC and 2009
24 with 2040 Shared Solution Alternative in West Point
 - 25 xii. Attachment 12: Comparison Maps for Employment in 2040 with WDC and in 2040 with
26 Shared Solution Alternative (total change and %) in West Point
 - 27 xiii. Attachment 13: Comparison Table for Households and Employment in 2009, in 2040
28 with WDC, and in 2040 with Shared Solution Alternative
 - 29 xiv. Attachment 14: Comparison Maps for Households in 2040 with WDC and in 2040 with
30 Shared Solution Alternative (total change and %) in Davis and Weber Counties
 - 31 xv. Attachment 15: Comparison Maps for Employment in 2040 with WDC and in 2040 with
32 Shared Solution Alternative (total change and %) in Davis and Weber Counties
- 33 b. The group walked through the data packets and land-use assumptions. The group discussed a
34 few of the attachments.
- 35 c. The group discussed the tentative schedule for evaluating the Shared Solution Alternative and
36 the WDC EIS process. Randy said that UDOT and the Coalition are requesting feedback on
37 the land-use proposals ideally by the end of February or early March.
- 38 d. Randy said that the Coalition and the WDC team would be happy to answer any questions or
39 attend additional meetings with West Point City if the City thought this would be helpful in
40 their review process.

3.2.11 West Haven City Staff Meeting

Date: February 18, 2015

Time: 12:00 PM to 1:00 PM

Location: West Haven City offices

Agenda: Review Shared Solution Alternative land-use assumptions for West Haven.

Attendees: Steve Anderson (West Haven City), Stephanie Carlson (West Haven City), Sharon Bolos (West Haven City Mayor), Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Brianne Olsen (Langdon Group), Roger Borgenicht (UBET/Shared Solution Coalition), and Renae Widdison (Shared Solution Coalition).

Meeting Summary

The group discussed the following topics:

1. Overview and Purpose of the Meeting

- a. Randy described the definition of a *reasonable alternative* and what is being requested of the City. He said that the formal request is on the letter provided by the Coalition. He emphasized that the only decision that UDOT and the Coalition are requesting from the City is on the land-use component of the Shared Solution Alternative. The group is not asking the City which alternative they prefer.

2. Shared Solution Alternative Overview

- a. Roger Borgenicht of the Coalition provided an overview of the history, concepts, and intent behind the Shared Solution Alternative. Renae Widdison highlighted how the Coalition has tried to incorporate the vision of Wasatch Choices 2040 into the Shared Solution Alternative. Renae presented the components of the Shared Solution Alternative. Renae's PowerPoint presentation highlighted the benefits of the Shared Solution Alternative and went through some of the roadway, transit, and land-use features of the Shared Solution Alternative. Renae's presentation noted that SR 108 is the primary redevelopment area proposed in West Haven with nodes proposed at 3300 South/SR 108 and 4000 South/SR 108. Roger concluded the presentation by emphasizing the benefits of the Shared Solution Alternative.

3. Shared Solution Alternative Land-Use Assumptions in West Haven

- a. Following the Coalition's presentation and the discussion, the group reviewed and discussed the Shared Solution Alternative data packets that were provided to West Haven City. The packet contained the following information:
 - i. Attachment 1: Shared Solution Alternative Map – updated January 15, 2015
 - ii. Attachment 2: Sample Shared Solution Alternative Boulevard Typical Sections and Innovative Intersections
 - iii. Attachment 3: Draft Level 1 Screening Results for Shared Solution Alternative (December 2014)
 - iv. Attachment 4: Shared Solution Alternative Land-Use Modeling Assumptions and Methodology Memo

- v. Attachment 5: Map of Proposed Shared Solution Redevelopment Areas in West Haven (Figure 1)
 - vi. Attachment 6: Map of West Haven Planned Land Uses for Proposed Redevelopment Areas (Figure 2)
 - vii. Attachment 7: Comparison Table for Proposed Shared Solution Land Use and West Haven Planned Land Use
 - viii. Attachment 8: Shared Solution Land-Use Designations Reference Table
 - ix. Attachment 9: Comparison Maps for Households in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in West Haven
 - x. Attachment 10: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in West Haven
 - xi. Attachment 11: Comparison Maps for Employment in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in West Haven
 - xii. Attachment 12: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in West Haven
 - xiii. Attachment 13: Comparison Table for Households and Employment in 2009, in 2040 with WDC, and in 2040 with Shared Solution Alternative
 - xiv. Attachment 14: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
 - xv. Attachment 15: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
- b. The group walked through the data packets and land-use assumptions. The group discussed a few of the attachments.
 - c. Steve Anderson told the group that West Haven City is currently approving a mixed-use development on the northwest quadrant of the 4000 South/SR 108 intersection that will be about 15–20 units/acre. Steve said that a Wal-Mart is almost approved on the southwest quadrant of the 4000 South/SR 108 intersection.
 - d. Steve said that the West Haven mixed-use zone is flexible and allows the Cities to work with developers on mixed-use proposals. Steve said he still anticipated that jobs in the 3300 South and Wilson Lane areas between 1900 West and I-15 would increase and that this would conflict with the decrease in jobs shown by the Shared Solution Alternative land-use proposals in this area. Steve and Mayor Bolos said that having higher-density residential areas in the eastern part of West Haven could help reduce the residential density in the western parts of West Haven.
 - e. The group also discussed the 4000 South project and the potential for a bicycle trail or bicycle route along 4000 South as part of the 4000 South project or the Shared Solution Alternative.
 - f. The group discussed the tentative schedule for evaluating the Shared Solution Alternative and the WDC EIS process. Randy said that UDOT and the Coalition are requesting feedback on the land-use proposals ideally by early to mid-March.
 - g. Randy said that the Coalition and the WDC team would be happy to answer any questions or attend additional meetings with West Haven City if the City thought this would be helpful in their review process.

3.2.12 Roy City Staff Meeting

Date: February 18, 2015

Time: 2:00 PM to 3:00 PM

Location: Roy City offices

Agenda: Review Shared Solution Alternative land-use assumptions for Roy.

Attendees: Andy Blackburn (Roy City), Ross Oliver (Roy City), John Bjerregaard (Roy City), Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Brianne Olsen (Langdon Group), Roger Borgenicht (UBET/Shared Solution Coalition), and Renae Widdison (Shared Solution Coalition).

Meeting Summary

The group discussed the following topics:

1. Overview and Purpose of the Meeting

- a. Randy described the definition of a *reasonable alternative* and what is being requested of the City. He said that the formal request is on the letter provided by the Coalition. He emphasized that the only decision that UDOT and the Coalition are requesting from the City is on the land-use component of the Shared Solution Alternative. The group is not asking the City which alternative they prefer.

2. Shared Solution Alternative Overview

- a. Roger Borgenicht of the Coalition provided an overview of the history, concepts, and intent behind the Shared Solution Alternative. Renae Widdison highlighted how the Coalition has tried to incorporate the vision of Wasatch Choices 2040 into the Shared Solution Alternative. Renae presented the components of the Shared Solution Alternative. Renae's PowerPoint presentation highlighted the benefits of the Shared Solution Alternative and went through some of the roadway, transit, and land-use features of the Shared Solution Alternative. Renae's presentation noted that SR 108, 1900 West (SR 126), 4000 South, and 5600 South are the primary redevelopment areas proposed in Roy, with nodes proposed at 4000 South/1900 West, 5600 South/1900 West, 3500 West/5600 South, and 3500 West/SR 108. Roger concluded the presentation by emphasizing the benefits of the Shared Solution Alternative.

3. Shared Solution Alternative Land-Use Assumptions in Roy

- a. Following the Coalition's presentation and the discussion, the group reviewed and discussed the Shared Solution Alternative data packets that were provided to Roy City. The packet contained the following information:
 - i. Attachment 1: Shared Solution Alternative Map – updated January 15, 2015
 - ii. Attachment 2: Sample Shared Solution Alternative Boulevard Typical Sections and Innovative Intersections
 - iii. Attachment 3: Draft Level 1 Screening Results for Shared Solution Alternative (December 2014)
 - iv. Attachment 4: Shared Solution Alternative Land-Use Modeling Assumptions and Methodology Memo

- v. Attachment 5: Map of Proposed Shared Solution Redevelopment Areas in Roy (Figure 1)
 - vi. Attachment 6: Map of Roy Planned Land Uses for Proposed Redevelopment Areas (Figure 2)
 - vii. Attachment 7: Comparison Table for Proposed Shared Solution Land Use and Roy Planned Land Use
 - viii. Attachment 8: Shared Solution Land-Use Designations Reference Table
 - ix. Attachment 9: Comparison Maps for Households in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Roy
 - x. Attachment 10: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Roy
 - xi. Attachment 11: Comparison Maps for Employment in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Roy
 - xii. Attachment 12: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Roy
 - xiii. Attachment 13: Comparison Table for Households and Employment in 2009, in 2040 with WDC, and in 2040 with Shared Solution Alternative
 - xiv. Attachment 14: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
 - xv. Attachment 15: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
- b. The group walked through the data packets and land use assumptions. The group discussed a few of the attachments.
 - c. Andy said that the main transportation issues in Roy are 5600 South, 4800 South, and I-15. Andy said that Roy City was generally in favor of a western freeway alternative because it would help reduce current and future congestion on these roads.
 - d. Andy thought that Roy City might want to have the Coalition come back and give a presentation to the Roy City Council but said that the city staff would review the information first to see whether this would be necessary.
 - e. The group also discussed whether a bicycle route or path was proposed along 1900 West. Randy noted said this is included as part of the Shared Solution Alternative.
 - f. The group discussed the tentative schedule for evaluating the Shared Solution Alternative and the WDC EIS process. Randy said that UDOT and the Coalition are requesting feedback on the land-use proposals ideally by early to mid-March.
 - g. Randy said that the Coalition and the WDC team would be happy to answer any questions or attend additional meetings with Roy City if the City thought this would be helpful in their review process.

3.2.13 Hooper City Staff Meeting

Date: February 20, 2015

Time: 2:00 PM to 3:00 PM

Location: Hooper City offices

Agenda: Review Shared Solution Alternative land-use assumptions for Hooper.

Attendees: Kyle Cooke (Hooper City), Randy Jefferies (UDOT), Kevin Kilpatrick (HDR), Roger Borgenicht (UBET/Shared Solution Coalition), Ann Floor (Shared Solution Coalition), and Renae Widdison (Shared Solution Coalition).

Meeting Summary

The group discussed the following topics:

1. Overview and Purpose of the Meeting

- a. Randy described the definition of a *reasonable alternative* and what is being requested of the City. He said that the formal request is on the letter provided by the Coalition. He emphasized that the only decision that UDOT and the Coalition are requesting from the City is on the land-use component of the Shared Solution Alternative. The group is not asking the City which alternative they prefer.

2. Shared Solution Alternative Overview

- a. Roger Borgenicht of the Coalition provided an overview of the history, concepts, and intent behind the Shared Solution Alternative. Renae Widdison highlighted how the Coalition has tried to incorporate the vision of Wasatch Choices 2040 into the Shared Solution Alternative. Renae presented the components of the Shared Solution Alternative. Renae's PowerPoint presentation highlighted the benefits of the Shared Solution Alternative and went through some of the roadway, transit, and land-use features of the Shared Solution Alternative. Renae's presentation noted that 5500 South is the only boulevard area proposed in Hooper and that a node/activity center is proposed at 5500 South/5900 West. Renae also described the proposed mixed land uses on 5500 South and at 5500 South/5900 West, noting that they were the lower-density mixed-use development types (BC-1A and TC-1A). Roger concluded the presentation by emphasizing the benefits of the Shared Solution Alternative.

3. Shared Solution Alternative Land-Use Assumptions in Hooper

- a. Following the Coalition's presentation and the discussion, the group reviewed and discussed the Shared Solution Alternative data packets that were provided to Hooper City. The packet contained the following information:
 - i. Attachment 1: Shared Solution Alternative Map – updated January 15, 2015
 - ii. Attachment 2: Sample Shared Solution Alternative Boulevard Typical Sections and Innovative Intersections
 - iii. Attachment 3: Draft Level 1 Screening Results for Shared Solution Alternative (December 2014)
 - iv. Attachment 4: Shared Solution Alternative Land-Use Modeling Assumptions and Methodology Memo

- v. Attachment 5: Map of Proposed Shared Solution Redevelopment Areas in Hooper (Figure 1)
 - vi. Attachment 6: Map of Hooper Planned Land Uses for Proposed Redevelopment Areas (Figure 2)
 - vii. Attachment 7: Comparison Table for Proposed Shared Solution Land Use and Hooper Planned Land Use
 - viii. Attachment 8: Shared Solution Land-Use Designations Reference Table
 - ix. Attachment 9: Comparison Maps for Households in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Hooper
 - x. Attachment 10: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Hooper
 - xi. Attachment 11: Comparison Maps for Employment in 2009 with 2040 WDC and 2009 with 2040 Shared Solution Alternative in Hooper
 - xii. Attachment 12: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Hooper
 - xiii. Attachment 13: Comparison Table for Households and Employment in 2009, in 2040 with WDC, and in 2040 with Shared Solution Alternative
 - xiv. Attachment 14: Comparison Maps for Households in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
 - xv. Attachment 15: Comparison Maps for Employment in 2040 with WDC and in 2040 with Shared Solution Alternative (total change and %) in Davis and Weber Counties
- b. The group walked through the data packets and land-use assumptions.
 - c. Kyle said that Hooper City is updating its general plan and anticipated that it would likely be completed in the spring or summer of 2015. Kyle said that residential densities up to 6 units per acre had been approved in Hooper. Kyle also said that Weber State University had purchased property for a satellite campus in Hooper near the 5500 South/5100 West intersection.
 - d. Kyle said that he would provide the data packets to the mayor and other city staff to review once they return from their vacations.
 - e. Randy said that UDOT and the Coalition would like a formal response from the City by the middle of March.
 - f. Randy said that the Coalition and the WDC team would be happy to answer any questions or attend additional meetings with Hooper City if the City thought this would be helpful in their review process. Kyle said he would discuss this with the mayor and city staff and let UDOT know if this would be helpful.

3.2.14 Clearfield City Planning Commission Work Session

Date: March 3, 2015

Time: 6:00 PM to 7:30 PM

Location: Clearfield City offices

Agenda: Review Shared Solution Alternative land-use assumptions for Clearfield with City Council and Planning Commission.

Attendees: Randy Jefferies (UDOT), Vince Izzo (HDR), Roger Borgenicht (UBET/Shared Solution Coalition), Renae Widdison (Shared Solution Coalition), Clearfield City Mayor, Clearfield City Council, Clearfield City Planning Commission, Clearfield City Planning staff.

Meeting Summary

The group discussed the following topics:

1. Overview and Purpose of the Meeting

- a. Randy described the definition of a *reasonable alternative* and what is being requested of the City. He said that the formal request is on the letter provided by the Coalition. He emphasized that the only decision that UDOT and the Coalition are requesting from the City is on the land-use component of the Shared Solution Alternative and the Shared Solution Alternative land-use assumptions in Clearfield. The group is not asking the City which alternative they prefer.

2. Shared Solution Alternative Overview

- a. Roger Borgenicht of the Coalition provided an overview of the history, concepts, and intent behind the Shared Solution Alternative. Renae Widdison of the Coalition presented the components of the Shared Solution Alternative. Renae noted that the Shared Solution Alternative was based on the general concepts of Wasatch Choices 2040 and was intended primarily to encourage future development and redevelopment in Clearfield toward State Street. The presentation highlighted the benefits of the Shared Solution Alternative and went through some of the roadway, transit, and land-use features of the Shared Solution Alternative.
- b. Following the presentation, the group had many questions about the transportation and land-use assumptions of the Shared Solution Alternative. The first comment was that Clearfield City felt that Davis County is a bedroom community and needed the WDC to improve regional transportation. Renae said that, with the Shared Solution Alternative, jobs would be local, and there would be less need for a new freeway. Clearfield City also said that the WDC is needed as an emergency route if I-15 is closed as a result of an emergency.
- c. Clearfield City felt that single-family homes in western Davis County are still needed, and there is less demand for multi-family homes near I-15. Renae said that, with the Shared Solution Alternative, there could still be single-family homes in western Davis County and that the alternative would also provide for other housing choices.
- d. Clearfield City said that they have tried similar land uses as those being proposed with the Shared Solution Alternative and have tried to bring in more jobs but have been unsuccessful. According to developers, there is no market in Clearfield for these uses. Renae said that, with

the improved infrastructure and transit options proposed with the Shared Solution Alternative, the mixed uses would be more likely to occur. Clearfield City said that, based on their past 9 years of experience trying to attract the mixed uses proposed with the Shared Solution Alternative, they have been unsuccessful, and therefore the City felt that the Shared Solution Alternative's land uses were not feasible. The City said that the growth is market-driven and cannot be driven just because the Shared Solution Alternative is being proposed. The City said that the land uses proposed with the Shared Solution Alternative would bring more retail jobs, not family-sustaining jobs, and they do not have the infrastructure to support the proposed Shared Solution Alternative. Renae said that, in Farmington, family-sustaining tech jobs are available as a result of the mixed land uses in the city.

- e. Finally, the City said they could not support the proposed Shared Solution Alternative land uses along State Street based on their past experience of unsuccessfully trying to attract similar land uses, and they felt the Shared Solution Alternative was not realistic.
- f. Roger Borgenicht said that RCLCO, a national market analysis firm with good credentials, was conducting a market study that would help determine whether the market could support the Shared Solution Alternative land use.

3.2.15 Hooper City Council Meeting

Date: March 19, 2015

Time: 7:00 PM to 8:00 PM

Location: Hooper City offices

Agenda: Review Shared Solution Alternative land-use assumptions for Hooper with Hooper City Council.

Attendees: Randy Jefferies (UDOT), Vince Izzo (HDR), Roger Borgenicht (UBET/Shared Solution Coalition), Ann Floor (Shared Solution Coalition), Hooper City Mayor, Hooper City Council.

Meeting Summary

The group discussed the following topics:

1. Overview and Purpose of the Meeting

- a. Randy described the definition of a *reasonable alternative* and what is being requested of the City. He said that the formal request is on the letter provided by the Coalition. He emphasized that the only decision that UDOT and the Coalition are requesting from the City is on the land-use component of the Shared Solution Alternative and the Shared Solution Alternative land-use assumptions in Hooper. The group is not asking the City which alternative they prefer.

2. Shared Solution Alternative Overview

- a. Roger Borgenicht of the Coalition provided an overview of the history, concepts, and intent behind the Shared Solution Alternative. No formal PowerPoint presentation was given. Roger said that the Shared Solution Alternative was about transportation choices and reducing vehicle-miles traveled (VMT). He also said that the alternative would help Hooper keep its

1 rural character by allowing development to occur close to I-15. He said that, in Hooper, the
2 boulevard would be on 5500/5600 South with a node at 5500 South 5900 West.

- 3 b. Following the presentation, the group had questions about the transportation and land-use
4 assumptions of the Shared Solution Alternative. The first question requested more
5 information on the boulevard/node concept and where these have been built. Roger explained
6 the concept and said that Chico, California, had a street similar to those proposed with the
7 Shared Solution Alternative. Hooper City asked about the size of the population in Chico,
8 California, compared to Hooper. Roger also said that there were examples in Layton (Main
9 Street) and St. George.
- 10 c. The City asked whether additional right-of-way would be required. Roger said that the width
11 of the right-of-way would be the same as that identified in the RTP for 2040. He said that
12 5500/5600 South was planned to be a four-lane facility by 2040. The City said that there was
13 very little commercial land use in Hooper, and the city was about 84% residential. However,
14 the City hoped that new commercial developments would happen in the next 10 years once
15 Weber State University starts to develop. The City said that some of the Shared Solution
16 Alternative land-use concepts might occur if commercial uses are developed in Hooper.
- 17 d. The City said that the big issue is the east-west traffic on 5500/5600 South through Roy and
18 that travel to I-15 is difficult with very congested traffic. The City felt that they needed
19 5500/5600 South to be widened now and not wait for the Shared Solution Alternative. Roger
20 said that the street would be widened as identified in the RTP.

3.2.16 Results of the City Land-Use Meetings

The Coalition and UDOT met with each City in the WDC study area to present the Shared Solution Alternative proposed land uses. During the meetings, the Coalition said that the land uses were general in nature, and the Cities were being asked to approve only the concept of mixed-used developments that could be allowed if the proposed Shared Solution Alternative transportation investments were made instead of the WDC.

During their presentations to the Cities, the Coalition said that the boulevard streets and nodes, if implemented, would attract mixed-use developments with jobs and housing and that these types of developments would reduce the need for vehicle travel and make communities more walkable. The Coalition's presentation to the Cities emphasized that the main benefit of the Shared Solution Alternative would be to alleviate the need for a new four-lane highway in the WDC study area. The Cities were aware of this purported benefit of the Shared Solution Alternative when reviewing the Shared Solution Alternative land-use proposals.

During the city meetings, a packet of information specific to each city was provided with a cover letter signed by the Coalition. The letter requested that the Cities respond to the following two questions:

1. If the roadway, transit, and active transportation elements of the Shared Solution Alternative were to be implemented, does the City consider the 2040 land-use scenario described in the attached documents to be reasonable (practical or feasible from a technical and economic standpoint)?
2. Would the City consider incorporating the land-use scenario into its general plan or zoning map at the completion of UDOT's Environmental Impact Statement process if this alternative were ultimately selected? To be clear, this is not approval of the Shared Solution Alternative as a whole, but only its land-use scenario. Nor are we requesting that the City modify its general plan at this time.

Of the 11 Cities in the WDC study area, only two found the Shared Solution Alternative proposed land uses to be reasonable. Table 3 below summarizes each City's responses to the two questions. Appendix I, City Responses, includes the letters from each City. The responses from the Cities on the land use were incorporated into the assumptions for the refined version of the Shared Solution Alternative, which is described in more detail in Section 4.0, Level 1 Screening for the Refined Shared Solution Alternative, of this memorandum.

Table 3. City Responses to Shared Solution Alternative Land-Use Proposals

City	Date of Meeting(s)	Date of Response Letter	Is the Land Use Reasonable?	Incorporate into Land Use Plan?	Notes
Roy	2/18/2015	3/30/2015	No	No	Letter was signed by mayor.
West Haven	2/18/2015	4/27/2015	No	N/A	Letter was signed by mayor and city engineer. West Haven City said that their general plan currently accommodates mixed-use development in areas identified as mixed use by the Shared Solution Alternative, so they wouldn't need to change their land-use plans.
Hooper	2/20/2015 3/19/2015	4/20/2015	No	No	Letter was signed by mayor.
Sunset	2/4/2015	5/1/2015	Yes	See notes	Letter was signed by mayor. "The Sunset Planning Commission would consider implementing the Shared Solution Land Use Plan, if it were carried forward. However, in our opinion, the proposed land use plan is not sufficient to meet the changes to the transportation network and vision of Sunset City for the future."
Clinton	2/9/2015	3/16/2015	No	No	Letter was signed by mayor.
West Point	2/12/2015	2/23/2015 (received 3/12/2015)	No	No	Letter was signed by mayor and city manager.
Clearfield	2/4/2015 3/3/2015	3/4/2015	No	No	Letter was signed by mayor and city council members.
Syracuse	1/15/2015 1/20/2015	3/10/2015	No	No	Letter was signed by mayor.
Layton	1/27/2015 1/29/2015	2/23/2015	No	No	Letter was signed by mayor and city council members.
Kaysville	1/26/2015	3/10/2015	No	No	Letter was signed by mayor and city council members.
Farmington	2/5/2015	5/7/2015	Yes, with modifications proposed by Farmington City as part of their response	Yes, the City's general plan and zoning already have incorporated the land-use scenario	Letter was signed by city community development director. Farmington City received an updated Shared Solution Alternative land-use packet for review and comment on 2/25/2015. Farmington City's responses said that the land uses would be reasonable with modifications included in the response packet. Farmington City said that they would implement the alternative into their general plan because the land uses are basically similar to those in the current plan. The overall number of residential and commercial units proposed by the Shared Solution Alternative is similar to the revision proposed by Farmington City in the response letter.

3.3 Market-Based Evaluation of Shared Solution Alternative Land-Use Plan

UDOT hired RCLCO to study the market for the land-use plans proposed as part of the Shared Solution Alternative. The *Market-Based Evaluation of Shared Solution Alternative Land Use Plan, Davis and Weber Counties, Utah*¹ concluded the following:

In summary, the Shared Solution Alternative described a type and style of development that is likely to occur to some degree in Davis and Weber Counties over the near to long term and has identified a number of potential locations for this development. It underemphasizes, however, the significant market forces driving the lower-density development in the area as well as a number of significant market obstacles to actually realizing redevelopment in line with the Shared Solution expectations. The Shared Solution Alternative is therefore highly unlikely to impact land-use trends to the degree assumed; indeed, even construction of the West Davis Corridor is unlikely to change development patterns significantly, but may facilitate more ordered development of the area.

A copy of the final RCLCO report is included in Appendix K..

3.3.1 RCLCO Teleconference to Discuss Market Analysis and Methodology

Date: February 4, 2015

Time: 2:00 PM to 3:00 PM

Location: HDR, Salt Lake City, Utah, and teleconference

Agenda: Review the RCLCO market analysis process and methodology.

Attendees: Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Roger Borgenicht (UBET/Shared Solution Coalition), Renae Widdison (Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Taylor Mammen (RCLCO), and Jay Siegel (RCLCO).

Meeting Summary

The group discussed the following topics:

1. The purpose of the meeting was to go over the proposed RCLCO market analysis of the Shared Solution Alternative land-use and development scenario.
2. Randy provided an overview of the WDC project and the Shared Solution Alternative. He said that the purpose of the market analysis was to review the Shared Solution Alternative land-use and development scenario and determine whether the proposal is feasible based on the economic market.
3. Roger Borgenicht stated that RCLCO should look at the entire Shared Solution Alternative including transportation, transit, and pedestrian improvements and determine whether the market for the proposed land use and development is reasonable.

¹ RCLCO (Robert Charles Lesser & Co.), *Market-Based Evaluation of Shared Solution Alternative Land Use Plan, Davis and Weber Counties, Utah*, March 2015.

4. Taylor said that the market analysis will include the following four topics:
 - o Location of proposed land use and development.
 - o Land supply
 - o Redevelopment possibility
 - o Residential density
5. Mike asked if the evaluation will determine whether there is a market for a freeway. Taylor said that the study would look at the overall market, which could include many transportation investments.
6. Taylor said that he would interview local developers to better understand the market. Roger mentioned Cowboy Partners and Paul (developed urbanism) as potential people to interview. Taylor said he would contact those sources.
7. Roger said that the proposal for the RCLCO market analysis of the Shared Solution Alternative was on the right track.

3.3.2 RCLCO Teleconference to Discuss Draft Results of Market Analysis

Date: March 12, 2015

Time: 11:00 AM to 12:30 PM

Location: Teleconference

Agenda: Discuss preliminary results from the RCLCO market analysis.

Attendees: Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Roger Borgenicht (UBET/Shared Solution Coalition), Renae Widdison (Shared Solution Coalition), Ann Floor (Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Taylor Mammen (RCLCO), and Jay Siegel (RCLCO).

Meeting Summary

The group discussed the following topics:

1. Randy Jefferies provided introductions and turned the meeting over to Taylor Mammen.
2. Taylor Mammen provided an overview of the process that RCLCO went through and discussed the draft results of the market analysis for the Shared Solution Alternative. Discussion points included the following items:
 - a. Taylor said that RCLCO's findings suggest that there will likely be an increasing portion of higher-density residential and mixed-use development in Davis and Weber Counties in the future.
 - b. Taylor said that RCLCO's findings are that the Shared Solution Alternative likely underestimates the amount of single-family residential (SFR) development that will occur in western Davis and Weber Counties in the future. Taylor said that the market demand, economics, land availability, and lack of constraints were all factors that led RCLCO to this conclusion.

- c. Taylor said that the transportation improvements proposed as part of the Shared Solution Alternative wouldn't be enough to shift the overall patterns of development in Davis and Weber Counties.
3. Renae Widdison asked how much redevelopment could be anticipated from the Shared Solution Alternative scenario.
 - a. Taylor answered that RCLCO does not think that the Shared Solution Alternative would cause a meaningful change in the overall development patterns in Davis and Weber Counties and that there would still be a large demand for SFR development.
4. Renae asked what effect the WDC new highway alternatives would have on land uses in the WDC study area.
 - a. Taylor responded that RCLCO anticipates that the market demand and economics for continued primarily SFR development will continue with or without a WDC highway. Taylor reiterated that the economics and demographics are the primary drivers for the demand for more SFR development, not the presence or absence of a highway or the Shared Solution Alternative.
5. Renae asked what would be needed to change the market demand in western Davis and Weber Counties.
 - a. Taylor responded that changes beyond transportation, such as urban growth boundaries or much stricter development regulations, would be required to change the market dynamic.
6. Mike Brown said that the Shared Solution Alternative was trying to make Davis County more attractive for jobs and trying to discourage Davis and Weber County residents from commuting to Salt Lake City. Mike asked what the impact of the Shared Solution Alternative would be on making Davis and Weber Counties more attractive for jobs and employment.
 - a. Taylor responded that locating high-paying jobs depends on many variables and that the boulevards and transportation amenities proposed by the Shared Solution Alternative would, by themselves, not be sufficient to incentivize a change in the location of future jobs. Taylor said that RCLCO still anticipates the majority of future jobs to be located at cores such as Salt Lake City, Sandy, Cottonwood Heights, Draper, Lehi, Bountiful, Layton, and Ogden. Taylor said that most high-paying jobs tend to cluster in the same areas and that RCLCO does not anticipate this dynamic changing in the future.
 - b. Taylor also said that, in general, providing good transportation networks and services between job cores is a better benefit and incentive for jobs than trying to discourage transportation between job cores (like the Shared Solution Alternative is trying to do). Taylor said that Davis County would likely improve its chances of getting more high-quality jobs in Layton and higher-quality residential development in western Davis and Weber Counties with a new WDC highway alternative, since the better transportation system and higher-quality residential development would be a better incentive for companies trying to find good locations for their offices. Taylor said that household growth leads job growth, and the highest-quality jobs tend to go toward areas with the higher-quality residential areas and areas with the higher quality of life.
 - c. Taylor also said that most of the developers he had spoken with as part of the market analysis had stated that eliminating the WDC highway wouldn't stop development in western Davis

- 1 and Weber Counties but could result in a lower quality of residential development. The
2 developers also told Taylor that they were skeptical that there would be much redevelopment
3 before 2040. The developers said that the area would likely have to get built out before land
4 prices would appreciate enough to make redevelopment a viable economic option.
- 5 7. Renae asked whether the land-use plans for the Cities in the WDC study area were accurate or
6 consistent with the results from the RCLCO market analysis.
- 7 a. Taylor responded that RCLCO had undertaken the market analysis independent of the city
8 land-use plans. Taylor said that the market usually drives the land-use plans, and that the city
9 land-use plans are usually consistent with their market studies.
- 10 8. Randy said that UDOT was reviewing the first draft of the RCLCO report and had a few minor
11 edits for RCLCO to address. RCLCO said that they would address the comments quickly once the
12 comments were received. Randy said that UDOT would provide the draft RCLCO market
13 analysis to the Shared Solution Coalition for review once these edits were addressed. He
14 anticipated that this would be the week of March 16–20.
- 15 9. Roger Borgenicht said that the Shared Solution Coalition was finalizing a Google Earth file that
16 would have locations for bicycle lanes, access lanes, innovative intersections, and proposed
17 transit. Roger said that he thought this would be done and submitted to UDOT by March 16.
- 18 10. Randy also requested a copy of any final modeling comments or questions as soon as possible.
- 19 11. Randy said that he had received responses from Layton City and Kaysville City and was
20 anticipating responses from the other Cities in the next couple weeks.

3.4 Refinement of the Shared Solution Alternative

Following the feedback from the Cities and UTA, UDOT and the Coalition had meetings to discuss the modeling assumptions for the Shared Solution Alternative that would be used as part of the WDC screening process. This section discusses the meetings that were held during this process.

WFRC Version 8.1 Travel Demand Model. In May 2015, WFRC released the 2015 RTP and associated travel demand model (version 8). Prior to the release of the 2015 RTP, the WDC team had been using the 2011 RTP and version 7 of the travel demand model. Version 8 included important updates to version 7 including a 2012 household survey and more-accurate modeling of transit, pedestrians, and bicyclists. To ensure that the latest data and tools were being used to predict travel demand, the WDC team decided to use version 8.1 (8.1 was released in 2016 and includes the I-15 Managed Motorways project) of the travel demand model for evaluating the Shared Solution Alternative. The first step of the process was to rescreen the initial list of alternatives described in the Draft EIS with the Shared Solution Alternative included as part of the Level 1 screening process. The refinement process described below references version 8 of the travel demand model for meetings held in 2015 and the use of version 8.1 of the travel demand model for meetings held in 2016 and for the updated Level 1 screening process.

3.4.1 Meeting to Discuss Updated Modeling Assumptions Based on Feedback from Cities and UTA

Date: August 18, 2015

Time: 10:00 AM to 12:30 PM

Location: Avenue Consultants, Salt Lake City, Utah

Attendees: Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Roger Borgenicht (UBET/Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Dan Adams (Langdon Group), Ivan Hooper (Avenue Consultants), and Jayson Cluff (Horrocks).

Meeting Summary

The group discussed the following topics:

1. City Responses to Shared Solution Alternative Land-Use Proposals

- a. Randy showed the group a table summarizing the responses from the Cities to the Shared Solution land-use proposals. Randy said that all of the Cities except Sunset City and Farmington City had rejected the Shared Solution Alternative land-use proposals.
- b. The group discussed the Sunset City and Farmington City response letters.
 - i. Randy showed the group a table comparing Farmington City's proposed changes to the previous two versions provided to Farmington City and said that about 10 fewer acres were included with Farmington City's proposal, but the number of jobs and households was similar.
 - ii. Randy said that Sunset City actually wanted higher density than what was proposed as part of the Shared Solution Alternative.
- c. Roger responded that he had interpreted the city response letters differently. Roger felt that, although they might have rejected the 100% broad-brush proposal, many of the Cities seemed to indicate that they would support some of the Shared Solution Alternative land-use

- 1 proposals. Roger and Mike both said that they didn't think it would be worthwhile to try to
2 develop another land-use scenario or go back to the Cities with another land-use proposal.
- 3 d. Roger and Mike both said that they didn't think it was possible that the Shared Solution
4 Alternative would not have different land uses compared to the No Action Alternative and the
5 WDC highway alternatives.
- 6 e. The group also discussed the RCLCO market analysis. Randy said that the RCLCO market
7 analysis didn't support the types of land uses proposed as part of the Shared Solution
8 Alternative land-use proposals and predicted that single-family residential housing would still
9 be the predominant type of development in the WDC study area between now and 2040.
- 10 i. Mike agreed that single-family residential was likely to still be viable but said he believes
11 that the amount single-family residential and other types of higher-density and mixed-use
12 developments would differ between the WDC alternatives and the Shared Solution
13 Alternative.
- 14 f. The group discussed the new WFRC travel demand model. Jayson explained that, in the new
15 WFRC 2040 RTP, the number of jobs and population in 2040 has increased, and the number
16 of households has slightly decreased, compared to the previous 2040 RTP. Jayson said that
17 there is a higher jobs-to-population ratio in the new RTP, and more of the jobs and population
18 are projected to be located farther east in the WDC study area.
- 19 g. Based on the responses from the Cities and the RCLCO market analysis, Randy said that
20 UDOT plans to use the updated WFRC land-use data assumptions for the Shared Solution
21 Alternative, similar to what is used for the other WDC alternatives.
- 22 h. Roger and Mike both said that they didn't agree with this assumption and said that the Shared
23 Solution Alternative and No-Action Alternative should have different land-use assumptions
24 than the WDC highway alternatives. Roger said that he didn't agree with this assumption and
25 wanted to talk to WFRC to see what their current assumptions in the new RTP are regarding
26 land use.
- 27 i. Mike said that WFRC is also developing and testing a real estate model that might be
28 able to predict development pattern differences for different transportation scenarios.
- 29 ii. Roger said that the Farmington City household projections might also be worth
30 considering and might be more accurate than the WFRC projections in version 7 of the
31 model. Randy noted that WFRC is the official agency responsible for socioeconomic
32 allocations and coordinates with each City.
- 33 **2. UTA Responses to Shared Solution Alternative Transit Proposals**
- 34 a. Randy reviewed UTA's responses to the Shared Solution Alternative's proposed transit
35 projects. Randy said that the two main differences were that UTA would allow only a 50%
36 reduction on the fares (compared to the 75% fare reduction proposed by the Shared Solution
37 Alternative) and that the Shared Solution Alternative was proposing a higher functional type
38 of BRT for the route from Clearfield to Weber State University–Davis.
- 39 b. The group said that the transit assumptions for the other BRT projects would need to be
40 cross-checked and verified against the new RTP. The purpose of this cross-check would be to
41 see what, if any, differences there are between the RTP and the Shared Solution Alternative
42 in order to identify how much credit the Shared Solution Alternative would get in the traffic
43 model.

- c. The group agreed to update these transit assumptions for the Shared Solution Alternative. This included changing the transit pass from \$50 to \$99.

3. Other Shared Solution Alternative Modeling Assumptions

a. Boulevards

- i. The group discussed the boulevards and innovative intersections and said that there wouldn't be any substantial changes to these assumptions. Randy said the Layton overpass is funded and will be built soon, so it would be part of the baseline. Roger said that the Clearfield overpass is still included as part of the alternative.

b. Innovative Intersections

- i. Jayson noted a modeling assumption that would be made for the approach legs of the innovative intersections to more accurately model their performance.

c. Bicycle Lane Assumptions

- i. Randy and Jayson said that the new WFRC RTP bicycle mode share is 1.5% for daily home-based work trips, which is an increase from the previous RTP's mode share of 0.67%.
- ii. Randy said that UDOT plans to use the WFRC default bicycle mode share assumptions, since the Shared Solution Alternative land-use proposals were rejected by the Cities.
- iii. Roger and Mike both said that they thought a bicycle mode share of 3% for daily home-based work trips was feasible with the Shared Solution Alternative's proposed protected bicycle facilities on the boulevards.
- iv. Randy said that the WDC team would review the research on striped and separated bicycle lanes to see what type of improvement could be anticipated from these types of facilities. Randy also said that he would send two typical sections (one of the UDOT standard arterial with a bicycle lane and the other with a Shared Solution Alternative typical section with a protected bicycle lane) to Shaunna Burbridge to review and comment on. Randy will ask Shaunna whether she thinks the Shared Solution Alternative proposal would make a meaningful difference in the number of home-based work trips compared to the bicycle lane included with the UDOT typical section.

d. Ramp Metering on I-15

- i. The group discussed ramp metering and the current UDOT Managed Lanes study. Randy proposed that he would talk to UDOT management, the study team, and WFRC to discuss the study and what the likely UDOT action would be as a result of the study. Randy said that, if UDOT plans to do ramp metering, this should become part of the WDC No-Action Alternative and all action alternatives (including the Shared Solution Alternative). If UDOT does do ramp metering, the Shared Solution Alternative would then get modeling credit for only any additional ramp metering it would be proposing beyond UDOT's ramp metering.

e. WFRC Version 8 Model

- i. Randy said that the WDC team will be re-screening all 46 original alternatives with version 8 of the WFRC travel demand model. He said that there was enough difference between versions 7 and 8 of the model that the WDC team wanted to verify the screening results. The Shared Solution Alternative would be included in the re-screen as alternative 47. Roger asked whether this would require a supplemental EIS. Vince said that it would

require a supplemental EIS only if new alternatives not previously analyzed now passed Levels 1 and 2 screening.

4. Next Steps

- a. Meet again on September 1 at 3 PM to discuss follow-up items.
- b. The Shared Solution Alternative will be included with other WDC alternatives when the WDC alternatives are rescreened in the fall of 2015.

3.4.2 Follow-up Meeting to Discuss Updated Modeling Assumptions

Date: September 1, 2015

Time: 3:00 PM to 5:00 PM

Location: Avenue Consultants, Salt Lake City, Utah

Attendees: Randy Jefferies (UDOT), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Roger Borgenicht (UBET/Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Dan Adams (Langdon Group), Ivan Hooper (Avenue Consultants), and Jayson Cluff (Horrocks).

Meeting Summary

The group discussed the following topics:

1. Recap of Previous Meeting

- a. The group reviewed the Shared Solution Alternative modeling assumptions that had been discussed at the previous meeting.
- b. The group agreed to the minor changes that had been made at the last meeting for the boulevard and UTA assumptions.
- c. For evaluating the land use for the alternatives, Randy reiterated that right now the default land-use assumptions for all of the WDC alternatives and the Shared Solution Alternative are the land-use components in the updated 2015 WFRC RTP land-use files.
 - i. Roger and Mike requested that UDOT use the Real Estate Market Modeling (REMM) tool that WFRC is developing. They recommended running the model on the No-Build, Preferred, and Shared Solution Alternatives. Randy agreed to consider using the tool but said that UDOT would need to meet with WFRC and the Federal Highway Administration to learn more about the tool and its assumptions, intended uses, and availability before deciding whether its use would be appropriate for the WDC.
 - ii. Randy said that UDOT would consider adjusting the land uses in Farmington and Sunset based on feedback received from those Cities during the Shared Solution Alternative development process.

2. Bicycle Lane Assumptions

- a. Randy said that he had discussed the protected bikeways concept with Shaunna Burbidge and that she had sent him some studies on this issue. Randy and Vince said that all of the studies had found that protected bikeways had increased ridership and use of the facility compared to an unprotected bikeway, although many studies were not able to determine how many of the

1 users were new or induced riders as compared to riders who had previously been using other
2 bicycle routes.

- 3 b. Randy said he felt that crediting the Shared Solution Alternative with 3% (instead of the
4 default 1.52%) of commuting trips on the roads where the Shared Solution Alternative
5 proposed a protected bicycle lane would be a conservative, reasonable way of estimating the
6 increased bicycle use from the Shared Solution Alternative. Mike and Roger agreed that this
7 assumption sounded reasonable. Mike said that it was not reasonable to assume a 3% bicycle
8 share for the entire study area. The group agreed that the analysis would be only for corridors
9 where the Shared Solution Alternative proposed protected bikeways.
- 10 c. Ivan, Jayson, and Mike said that there were a couple different options that could allow this to
11 be implemented into the travel demand model.

12 3. Managed Lanes Modeling Assumptions

- 13 a. Randy told the group that he had discussed the UDOT Managed Lanes project with UDOT
14 leadership and traffic modelers and had been told that UDOT would implement this project,
15 but that the details and assumptions of the project will likely not be finalized for a few
16 months. Randy said that UDOT was considering using preventative ramp metering that would
17 keep I-15 operating at 45 mph during peak-hour congestion.
- 18 b. Similar to the previous discussion, Randy thought that, since UDOT plans to implement this
19 project, the Shared Solution Alternative credit for I-15 ramp metering or managed lanes
20 should be the amount beyond what the UDOT project would involve.
- 21 c. Mike and Roger responded that the Shared Solution Alternative should include the
22 assumption that I-15 can continue to function at 60 mph and that I-15 will not fail. Jayson
23 said that it has previously been difficult to model this, given the high travel demand on I-15.
24 Mike said that the Shared Solution Alternative should include longer ramp penalties than
25 those assumed as part of the No-Build Alternative.
- 26 d. Mike and Roger also thought that UDOT should give all or some of the publicity credit for
27 the Managed Lanes project to the Coalition, since this has been one of their primary ideas.

28 4. Next Steps

- 29 a. Randy will send to the Coalition the updated Shared Solution Alternative modeling
30 assumptions document to the Coalition.
- 31 b. Randy will forward to the Coalition Shaunna Burbidge's email with links to bicycle studies.
- 32 c. The WDC team will begin the process of rescreening the WDC alternatives (including the
33 Shared Solution Alternative) in September 2015.
- 34 d. The WDC team will discuss the REMM model with WFRC and the Federal Highway
35 Administration to learn more about the tool, its availability, and its applicability to the WDC
36 Project.
- 37 e. The group will set up a meeting with the larger Shared Solution Coalition to discuss the
38 WDC and Shared Solution Alternative processes. This meeting will be in October 2015,
39 tentatively for the week of October 5–9.

3.4.3 First Update Meeting with the Shared Solution Coalition

Date: October 8, 2015

Time: 4:00 PM to 5:30 PM

Location: Assist Utah, Salt Lake City, Utah

Agenda: Update the Shared Solution Coalition on the development and modeling assumptions of the Shared Solution Alternative.

Attendees: Randy Jefferies (UDOT), Roger Borgenicht (UBET/Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Vince Izzo (HDR), Yaeko Bryner and Lynn deFreitas (Friends of the Great Salt Lake), Tim Rodee (Citizens for a Better Syracuse), Ann Floor (UBET), Todd Jensen (Save Farmington), Joan Degiorgio (The Nature Conservancy), Tim Wagner (Utah Physicians for a Healthy Environment), Linda Johnson (Breathe Utah), Bruce Bassett (Save Farmington), Jason Steed (Citizens for a Better Syracuse), and Brianne Olsen (Langdon Group).

Meeting Summary

The group discussed the following topics:

1. Overview and Summary of the Shared Solution Alternative Development Process

- a. Randy and Roger provided an overview of the Shared Solution Alternative process since the Coalition members last met in November 2014. Randy provided a table that summarized the 38 meetings and five workshops held to develop the Shared Solution Alternative. He said that in December 2014 the alternative passed Level 1 screening, but that was before the land-use assumptions could be verified with the Cities and the transit and modeling assumptions could be verified. Since December, the Shared Solution Alternative has undergone many revisions.
- b. Randy said that the Coalition provided each City with a packet of the alternative land-use and roadway elements and made a presentation to each City. Each City was provided a letter asking whether they thought the land-use elements were reasonable to implement in future land-use plans. Of the 11 cities visited as part of the process, only two (Sunset City and Farmington City) found the proposed Shared Solution Alternative land-use reasonable. The other nine Cities rejected the land use.
- c. Roger said that the presentation to the Cities was broad-brush and that while some Cities might have rejected most of the land use they also said some elements might be acceptable.
- d. Time Rodee asked whether the Cities understood that the alternative to the Shared Solution Alternative was the WDC. Randy said yes.
- e. Mike Brown said that the Shared Solution Alternative didn't include a lesser road on the west side of the WDC study area and that the Cities might have accepted this option along with the land-use changes. Roger said that a new road on the west side of the WDC study area was not part of the Shared Solution Alternative.
- f. Finally, Randy said that the Shared Solution Alternative transit elements were presented to UTA. UTA thought that the elements were reasonable and, in fact, many of them have already been included in UTA's planning process. However, UTA thought that the proposed \$50 pass was not reasonable and should be \$100.

1 **2. Regional Transportation Plan Update**

- 2 a. Randy told the group that the new RTP was released in May 2015 and with it a new version
3 (8) of the travel demand model. The new model includes the latest household survey, transit,
4 and roadway components. He said that, because the model is the latest tool, UDOT would
5 rescreen the initial Draft EIS alternatives and would include the Shared Solution Alternative
6 in the screening. If the Shared Solution Alternative passes Level 1 screening, the alternative
7 will be moved into Level 2. Roger thought that the Shared Solution Alternative was moving
8 into Level 2 screening before the new model came out.
- 9 b. Roger said that WFRM has been working on the UrbanSim model, which is now called Real
10 Estate Market Evaluation model or REMM. He thought that the model would be ready by
11 December of this year and has asked UDOT to run the model for the WDC preferred
12 alternative, Shared Solution Alternative, and No-Build Alternative to compare land uses
13 between the alternatives.
- 14 c. Randy said that the Coalition had come up with a managed lanes concept for I-15 and that
15 UDOT would likely implement a similar concept by 2040. Therefore, the managed lanes
16 concept will be included as a baseline for all alternatives for the revised Level 1 screening
17 process.

18 **3. Other Items**

- 19 a. Todd Jensen asked about the EIS schedule. Randy said that, if the alternatives change from
20 the Draft EIS as a result of the new screening process, a supplemental EIS could be required,
21 with a Record of Decision then issued in late 2017. If the alternatives are similar to those in
22 the Draft EIS, the Final EIS and Record of Decision would be released in late 2016.
- 23 b. Tim Rodee said he felt that UDOT gave the Shared Solution Alternative a fair evaluation.
- 24 c. Randy mentioned that UDOT had RCLCO do a market analysis of the Shared Solution
25 Alternative land-use concepts and of the WDC study area. The report concluded that, because
26 of the low cost of land in western Davis and Weber Counties, the current trend of low-density
27 residential would likely continue.

3.4.4 Second Update Meeting with the Shared Solution Coalition

Date: March 8, 2016

Time: 3:00 PM to 4:30 PM

Location: Avenue Consultants, West Jordan, Utah

Agenda: Discuss Shared Solution Alternative modeling assumptions for re-screening process.

Attendees: Randy Jefferies (UDOT), Roger Borgenicht (UBET/Shared Solution Coalition), Nicole Zinnanti (Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Vince Izzo (HDR), Kevin Kilpatrick (HDR), Ivan Hooper (Avenue Consultants), and Jayson Cluff (Horrocks).

Meeting Summary

The group discussed the following topics:

1. Rescreening Process Overview and Assumptions

- a. Randy said that WFRC has updated version 8 of the travel demand model to include the managed motorways projects, which were added to the 2015–2040 RTP as Amendment 1 in January 2016. This model is considered version 8.1.
- b. Randy said that the purpose of the meeting was to go over the modeling assumptions for the Shared Solution Alternative.
- c. As part of the WDC re-screening process, the Shared Solution Alternative will be modeled with the other 47 alternatives using version 8.1 of the WFRC model.

2. Land-Use Assumptions for Shared Solution Alternative

- a. Randy said that the WDC team will use the Shared Solution Alternative land use for the Cities (Farmington City and Sunset City) that accepted the proposal.
- b. Randy said that the WFRC REMM model is in an experimental phase, and, until WFRC is ready to release the tool, UDOT will not run it with the WDC or Shared Solution alternatives.
- c. Version 8.1 of the travel demand model includes many of the Wasatch Choices land-use assumptions including higher-density land uses in the major cities and central corridors (I-15 and FrontRunner). In Farmington and Sunset, UDOT will compare the WFRC version 8.1 land-use assumptions with the Shared Solution Alternative's land-use assumptions and use for the Shared Solution Alternative whichever option has the higher densities.
- d. Roger said that the Coalition would like to see the differences among the land-use assumptions for version 7, version 8.1, and the Shared Solution Alternative. Ivan replied that this comparison can be provided.

3. Boulevard and Innovative Intersection Assumptions for Shared Solution Alternative

- a. Randy said that nothing has changed from the previous assumptions regarding innovative intersections and boulevards.

1 **4. Transit Assumptions for Shared Solution Alternative**

- 2 a. Randy said that the assumptions for the transit passes are now \$99/month for an unlimited
3 UTA pass in Davis County and \$99/month for the FrontRunner pass in Weber County, which
4 is the same as what was discussed in the fall of 2015 after meeting with UTA.
- 5 b. The group discussed the transit routes and model modes.
- 6 c. Mike suggested that the Weber State University–Davis route is similar to the existing UTA
7 route and should be kept as a mode 4 route in the model.
- 8 d. Version 8.1 of the model includes the BRT_Wash transit route, which would be split as part
9 of the Shared Solution Alternative. Mike suggested that the BRT_Wash_R and
10 BRT_Wash_2R routes be coded as Mode 9 in the model, which is an upgraded BRT route.
- 11 e. Mike recommended coding the two circulator routes for the small-van/peak-hour service in
12 northwest Davis and southwest Weber Counties as mode 4 in the model.

13 **5. Bicycle/Pedestrian Assumptions for Shared Solution Alternative**

- 14 a. Assume a 3% commuting bicycle share for roads that have protected bikeways. Roads
15 without protected bikeways will keep the default bicycle share assumptions.

16 **6. Managed Motorways/Ramp Metering Assumptions for Shared Solution Alternative**

- 17 a. Initially, UDOT manually adjusted the model to account for the Shared Solution Alternative's
18 proposed ramp metering. Now, the WFRC version 8.1 travel demand model includes
19 managed motorways with a ramp penalty of up to 6 minutes. This penalty will be used as the
20 baseline, since it's included in the WFRC 2015–2040 RTP as Amendment 1.
- 21 b. For the Shared Solution Alternative, the goal is to make I-15 not fail in the WDC study area.
22 Mike said that the Shared Solution Alternative should be given the credit for any wait time
23 over 6 minutes in the WDC study area.

24 **7. I-15 Crossing Assumptions for Shared Solution Alternative**

- 25 a. Randy said that the 1200 North overpass in Layton is now included in the WFRC 2015–2040
26 RTP and is planned to be constructed in Phase 1. This project will now be part of the baseline
27 assumptions and not the Shared Solution Alternative assumptions.

28 **8. Next Steps**

- 29 a. Randy will update the Shared Solution Alternative modeling assumptions document that was
30 discussed during this meeting and send it to the Coalition for review and comment.
- 31 b. Randy said he anticipated that re-screening modeling with version 8.1 would be likely be
32 occurring within the next month or two.

3.4.5 Third Update Meeting with the Shared Solution Coalition

Date: April 18, 2016

Time: 1:00 PM to 4:30 PM

Location: Avenue Consultants, West Jordan, Utah

Agenda: Discuss Shared Solution Alternative modeling assumptions for re-screening process.

Attendees: Randy Jefferies (UDOT), Roger Borgenicht (UBET/Shared Solution Coalition), Nicole Zinnanti (Shared Solution Coalition), Mike Brown (Metro Analytics/Shared Solution Coalition), Vince Izzo (HDR) via teleconference, Kevin Kilpatrick (HDR), Ivan Hooper (Avenue Consultants), and Jayson Cluff (Horrocks).

Meeting Summary

The group discussed the following topics:

1. Rescreening Process Overview and Assumptions

- a. Randy said that the purpose of the meeting was to go over the modeling assumptions for the Shared Solution Alternative.
- b. As part of the WDC re-screening process, the Shared Solution Alternative will be modeled with the other action alternatives using version 8.1 of the WFRC model.

2. Land-Use Assumptions for Shared Solution Alternative

- a. Randy said that the WDC team will use the Shared Solution Alternative land use for the Cities (Farmington City and Sunset City) that accepted the proposal.
- b. Mike Brown requested that any job redistribution in Farmington and Sunset come from outside the WDC study area. Mike requested that the jobs come from Bountiful or southern Davis County. Randy stated that the Shared Solution Alternative should take only enough jobs out of Bountiful that the jobs in Farmington and Sunset would match the number of jobs that were approved by Farmington City and Sunset City as part of the Shared Solution Alternative's land-use proposal.

3. Boulevard and Innovative Intersection Assumptions for Shared Solution Alternative

- a. The group reviewed the boulevard and innovative intersection assumptions for the Shared Solution Alternative. Mike Brown said that the roadway link on SR 126 between SR 193 and 1000 East should also get a 17% benefit from being between two innovative intersections.
- b. The group also discussed how the Bluff Road improvements were included in the travel demand model. The group agreed to make the Bluff Road proposed as part of the Shared Solution Alternative a functional type 3 in the travel demand model.

4. Transit Assumptions for Shared Solution Alternative

- a. The group discussed the transit routes and model modes.
- b. Ivan and Jayson agreed to double-check what assumptions are made in the travel demand model about distance-based fares.
- c. Jayson showed the group that the BRT_Wash_R and BRT_Wash_2R routes had been coded as Mode 9 in the model, based on Mike's recommendation from the previous meeting.

- d. Randy said he would check the minutes from the UTA meetings to double-check the transit fare assumptions for the Shared Solution Alternative.

5. Bicycle/Pedestrian Assumptions for Shared Solution Alternative

- a. The group reviewed the bicyclist and pedestrian assumptions. Mike Brown said that he thought the assumptions looked good.

6. Managed Motorways/Ramp-Metering Assumptions for Shared Solution Alternative

- a. Initially, UDOT manually adjusted the model to account for the Shared Solution Alternative's proposed ramp metering. Now, the WFRC version 8.1 travel demand model includes managed motorways with a ramp penalty of up to 6 minutes. This penalty will be used as the baseline, since it's included in the WFRC 2015–2040 RTP as Amendment 1.
- b. For the Shared Solution Alternative, the goal is to make I-15 not fail in the WDC study area. Mike said that the Shared Solution Alternative should be given the credit for any wait time over 6 minutes in the WDC study area. The current Shared Solution Alternative model allows delays of up to 10 minutes on the ramps.

7. I-15 Crossing Assumptions for Shared Solution Alternative

- a. Randy said that the 1200 North overpass in Layton is now included in the WFRC 2015–2040 RTP and is planned to be constructed in Phase 1. This project will now be part of the baseline assumptions and not the Shared Solution Alternative assumptions.
- b. The crossing of I-15 between SR 193 and Antelope Drive is included in the Shared Solution Alternative.

8. Evaluation of Shared Solution Alternative

- a. The group discussed the next procedural steps for the Shared Solution Alternative.
- b. Mike said that, with the changes discussed in the meeting, he approved of the Shared Solution Alternative's modeling assumptions.
- c. Mike Brown stated his concerns that the Shared Solution Alternative might not pass the screening since it won't have as much transportation benefit from the ramp metering now that ramp metering/managed motorways are part of the No-Action Alternative.
- d. Roger said he didn't think it was fair that all of the other alternatives would also get the benefit of the managed motorways. Randy replied that all of the alternatives, including the Shared Solution Alternative and the No-Action Alternative, would have the benefit of the managed motorways since they're now part of the baseline assumptions.
- e. Mike said that, if the Shared Solution Alternative doesn't pass screening, he wanted to revisit the Shared Solution Alternative's assumptions for Bluff Road to see whether making the road a higher-capacity and/or longer facility would enable the Shared Solution Alternative to pass screening. Roger said that some members of the Shared Solution Coalition might not like this approach and that he would have to discuss anything like this with the broader coalition. Roger said that the MOA stated that UDOT has to give the Shared Solution Alternative a chance to be modified to pass screening.
- f. Randy replied that, if the Shared Solution Alternative doesn't pass screening, UDOT intends to follow the procedures in the MOA. If the Shared Solution Alternative is close to passing screening, UDOT will consider minor modifications that could potentially make it an

alternative that passes screening. Per the MOA, if the Shared Solution doesn't pass Level 1 Screening and is not close to meeting the Purpose and Need for the project, UDOT would eliminate the Shared Solution from further consideration and prepare documentation to be shared with the public and included with the Final EIS.

9. Next Steps

- a. Randy will update the Shared Solution Alternative modeling assumptions document that was discussed during this meeting and will send it to the Coalition for review and comment.
- b. Randy said he anticipated that version 8.1 re-screening modeling results would likely be available by the second week of May. Randy said that he would provide the information to the Shared Solution Coalition once it's available.

4.0 Level 1 Screening for the Refined Shared Solution Alternative

The Shared Solution Alternative was developed and evaluated based on a MOA signed by UDOT and the Coalition on May 15, 2014. The purposes of the MOA were to define the process that would be used to develop and evaluate the Shared Solution Alternative, agree on the criteria that would be used to develop and evaluate the alternative, and ensure that the stakeholders involved in the process understood the steps that would be followed.

As defined in the MOA and described below, the process included holding a series of workshops with stakeholders to develop the Shared Solution Alternative and then analyzing the developed alternative to determine whether it would meet the purpose of the WDC project as defined in the Draft EIS.

The development, refinement, and evaluation process for the Shared Solution Alternative took place between May 2014 and May 2016. Six workshops, 30 technical meetings, and 15 individual meetings with Cities were held during this time. The technical meeting attendees included representatives from the Coalition and UDOT and technical experts. The workshop attendees included the same groups as well as representatives from local governments in the WDC study area, WFRC, UTA, and other interested stakeholders. The city meetings included city staff and elected officials.

The Shared Solution Alternative was developed primarily by the Coalition. Assistance was provided by UDOT technical experts, UTA, WFRC, and local government employees to help define and refine technical aspects of the alternative that were needed for modeling purposes. An annotated map of the initial Shared Solution Alternative was posted on the WDC public website on November 11, 2014. Below is the final Shared Solution Alternative map, dated February 17, 2015.

Figure 1. Shared Solution Alternative

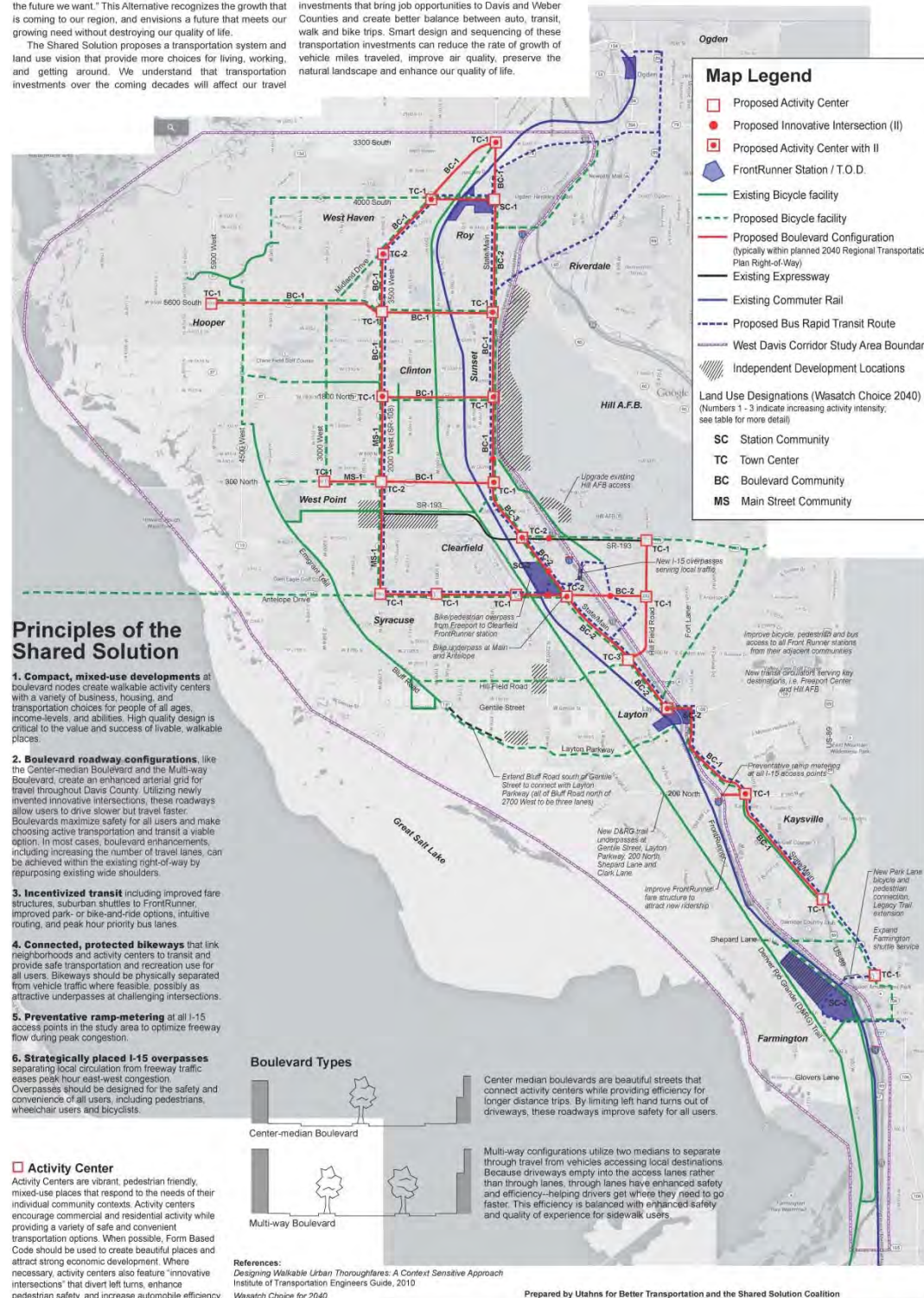
The Shared Solution Alternative

A Proposal for Livability and Mobility in West Davis and Weber Counties

The Shared Solution Alternative to the West Davis Freeway grows out of the Wasatch Choice for 2040, "a vision for building the future we want." This Alternative recognizes the growth that is coming to our region, and envisions a future that meets our growing need without destroying our quality of life.

The Shared Solution proposes a transportation system and land use vision that provide more choices for living, working, and getting around. We understand that transportation investments over the coming decades will affect our travel

needs as well as how our cities and towns grow and change. This Alternative therefore proposes transportation investments that bring job opportunities to Davis and Weber Counties and create better balance between auto, transit, walk and bike trips. Smart design and sequencing of these transportation investments can reduce the rate of growth of vehicle miles traveled, improve air quality, preserve the natural landscape and enhance our quality of life.



4.1 Methodology

The screening methodology for the Shared Solution Alternative was the same screening process that was used for the rest of the WDC alternatives. This process is described in detail in *Technical Memorandum 15: Alternatives Screening Report* and is summarized in Chapter 2, Alternatives, of the WDC Draft EIS. The final Shared Solution Alternative was included as part of the range of alternatives evaluated in Level 1 screening in 2016 that used version 8.1 of the WFRC regional travel demand model.

4.1.1 Alternative Assumptions

The Shared Solution Alternative was developed and refined over a 24-month period. The final transportation investments proposed with the Shared Solution Alternative were developed collaboratively with the Coalition, UDOT, WFRC, UTA, and the local Cities and Counties. The proposed transportation investments that make up the Shared Solution Alternative were evaluated using version 8.1 of the WFRC travel demand model. An initial Shared Solution Alternative was presented to the Cities and Counties during Workshop 6. However, during the refinement process, the Coalition modified the alternative by changing the location of innovative intersections, boulevards, access lanes, and land-use nodes as well as some of the transit assumptions. The refined April 2016 Shared Solution Alternative was used for final Level 1 screening.

4.1.2 Land-Use Assumptions

As described in Section 3.2, City Land-Use Meetings, a series of meetings were held with the Cities in the study area to determine whether the proposed Shared Solution Alternative land uses were reasonable, and, if so, whether the Cities would modify their land-use plans after the WDC EIS process was complete to include the proposed land uses. For the initial Shared Solution Alternative evaluation presented in Workshop 6, the proposed Shared Solution Alternative land uses were assumed before the Cities determined whether the land uses were reasonable. After the workshop, the Cities were provided the opportunity to review the land uses (see Section 3.2, City Land-Use Meetings) and determine whether the land uses were reasonable. For the final Level 1 screening, only the land uses that were determined reasonable by a City were included in the WFRC travel demand model. For the Cities that didn't find the land uses reasonable, the WFRC model land uses and socioeconomic data were assumed for these cities.

4.1.3 Modeling Assumptions

The Coalition retained their own travel modeling expert to help develop the Shared Solution Alternative. During the process, UDOT and the Coalition held a series of meetings to determine how the WFRC model should be set up to accurately reflect the Shared Solution Alternative. An initial Level 1 screening was conducted in December 2014 (see Workshop 6) prior to refinement of the alternative based on the land-use review process by the Cities and validation of the model assumptions. During the alternative-refinement process, the modeling assumptions were revised based on changes made by the Coalition to the alternative, review of the transit assumptions by UTA, the process of reviewing the Shared Solution Alternative land uses by the Cities, and review of the initial model by the Coalition. Appendix J, Final Shared Solution Alternative Assumptions and Map, includes the final modeling assumptions developed during the alternative-refinement process. Prior to modeling the final version of the Shared Solution Alternative, the Coalition reviewed and provided verbal approval for the modeling assumptions. Once

modeling of the Shared Solution Alternative was complete, the Coalition was provided the model output files for review to ensure the appropriate model set-up.

4.2 Level 1 Screening Criteria

The purpose of Level 1 screening is to identify alternatives that meet the purpose of and need for the project. Alternatives that were determined to not meet the purpose of and need for the project were considered unreasonable for NEPA purposes and not practicable for Clean Water Act Section 404(b)(1) purposes and were not carried forward for further analysis in Level 2 screening.

During Level 1 screening, the preliminary alternatives were screened against delay and congestion criteria (see Table 4).

Table 4. Level 1 Screening Criteria for the Preliminary Alternatives

Criterion	Measures
Reduce delay (improve regional mobility)	<ul style="list-style-type: none"> Substantial reduction in daily hours of delay Substantial reduction in lost productivity (dollars)^a
Reduce congestion (enhance peak-hour mobility)	<ul style="list-style-type: none"> Substantial reduction of lane-miles of roads operating at levels of service (LOS) E or F in the PM peak period Substantial reduction of vehicle-miles traveled (VMT) in congestion during the PM peak period Substantial reduction in vehicle-hours traveled (VHT) at LOS E or F in the PM peak period^b
Have adequate capacity	<ul style="list-style-type: none"> Transit alternative would have enough capacity to meet ridership demands Roadway alternative would be designed to achieve LOS D or better in the PM peak period

^a Lost productivity is based on an aggregate user rate of \$25.80 using \$15.50/hour for passenger vehicles, \$56.00/hour for box trucks, and \$102.00/hour for tractor trailer trucks. Assuming an average traffic composition of 86% passenger vehicles, 4% box trucks, and 10% tractor trailer trucks, the average cost is \$25.80/hour for travel time.

^b Other information, such as travel time by specific trips, could also be considered in comparing alternatives.

4.2.1 Reduce Delay and Congestion in the Study Area

In order to determine whether the preliminary action alternatives would substantially reduce congestion and delay in the study area, the WDC team calculated the following measures of effectiveness (MOE) for each preliminary alternative:

- **Daily total delay (measured in hours).** This MOE quantifies the daily total hours of delay experienced by drivers on all freeway, arterial, and collector roads in the study area for each alternative.
- **North-south road lane-miles with $V/C \geq 0.9$ (measured in miles).** This MOE calculates the number of north-south lane-miles in the study area that would operate in congestion (LOS E or F) in the PM peak 3-hour period for each alternative.
- **East-west road lane-miles with $V/C \geq 0.9$ (measured in miles).** This MOE calculates the number of east-west lane-miles in the study area that would operate in congestion (LOS E or LOS F) in the PM peak 3-hour period for each alternative.
- **Vehicle-miles traveled (VMT) with $V/C \geq 0.9$ (measured in miles).** This MOE calculates the total number of vehicle-miles traveled in congestion (LOS E or LOS F) in the study area during the PM peak 3-hour period for each alternative.
- **Vehicle-hours traveled (VHT) with $V/C \geq 0.9$ (measured in hours).** This MOE calculates the total number of vehicle-hours traveled in congestion (LOS E or F) in the study area during the PM peak 3-hour period for each alternative.

What is level of service (LOS)?

Level of service (LOS) is a measure of the operating conditions on a road. Level of service is expressed as a letter “grade” from A (free-flowing traffic and little delay) to F (extremely congested traffic and excessive delay). LOS B through E represent progressively worse operating conditions.

What is volume to capacity (V/C)?

Volume to capacity (V/C) is a measure of the actual traffic volume on a road compared to the traffic capacity for which the road was designed. A V/C ratio of 0.9 or greater indicates operating conditions of LOS E or F, which are generally considered unacceptable operating conditions.

For these MOEs, the travel demand model used V/C ratios greater than or equal to 0.9 to calculate which roads would be in congestion (LOS E or F).

Using the travel demand model, the WDC team calculated the five MOEs listed above for the 51 preliminary action alternatives and the No-Action Alternative listed in Section 4.3, Level 1 Screening Results, below. The No-Action Alternative’s MOE values were used as the basis for comparing the action alternatives in order to determine whether the action alternatives substantially reduced congestion and delay.

Once the range of MOE values for the action alternatives was calculated from the travel demand model, the WDC team calculated the average value and the first-quartile value (top 25%) for each MOE for all of the action alternatives. Both the absolute reduction (in hours or miles) and the percentage reduction compared to the No-Action Alternative were calculated to provide bases for comparing alternatives.

Although the range of values and percent reduction from the No-Action Alternative were different for each MOE, the average and first-quartile values provided a way for the WDC team to evaluate how substantially each action alternative reduced each MOE.

For the Level 1 screening process, the WDC team determined that the following criteria would indicate alternatives that would substantially reduce delay and congestion in the study area and would meet the purpose of and need for the project:

1. Perform better than the No-Action Alternative for all five MOEs
2. Perform better than the average value of all alternatives for all five MOEs
3. Perform at or better than the first-quartile (top 25%) value for at least three of the five MOEs

The WDC team determined that any alternative that (1) increased delay or congestion compared to the No-Action Alternative, (2) performed worse than the average value for one or more MOEs, or (3) did not perform in the first quartile for at least three of the five MOEs would not substantially reduce delay or congestion in the study area and would not meet the purpose of and need for the project.

The action alternatives that performed better than the No-Action Alternative for all five MOEs, had MOE values better than the average values for all five MOEs, and had MOE values in the first quartile for at least three of the five MOEs were advanced to Level 2 screening.

4.2.2 Provide Adequate Capacity

Additionally, for a roadway alternative to pass Level 1 screening, the alternative had to function at LOS D or better in 2040 to meet the purpose and need for the project. For example, a new roadway alternative would need to have all segments function at LOS D or better in 2040, and an alternative that would widen existing roads would need all widened roads to function at LOS D or better in 2040. If an alternative met the delay and congestion metrics but did not function at LOS D or better, the WDC team used the travel demand model analysis to identify additional capacity or improvements to the alternative (for example, intersection improvements, extending the new roadway or widened roadway, adding additional lanes, etc.) to try to make the alternative function at LOS D or better.

Similarly, if an alternative would cause failure conditions (LOS E or F) at a terminus, the WDC team also considered the alternative to not meet the purpose of and need for the project. In this situation, the WDC team used the travel demand model analysis to identify improvements for the alternative (for example, intersections improvements, extending the new roadway or widened roadway, adding additional lanes, etc.) that might allow the alternative to avoid failure conditions at either of the termini.

If an alternative could not be designed to function at LOS D or better and provide LOS D or better operations at its termini, the WDC team considered the alternative to not meet the purpose of and need for the project.

4.3 Level 1 Screening Results

The Level 1 screening results are summarized in Table 5 below. The No-Action MOE values, which are the basis for comparing the action alternatives, are shown in the first data row of Table 5. The average and first-quartile values for each MOE are listed at the bottom of the table below the alternatives along with their corresponding percent reductions from the No-Action Alternative's MOE values.

The data cells in Table 5 are colored as follows:

- **Black** – MOE value is worse than (higher than) the No-Action Alternative MOE value.
- **Red** – MOE value is worse than (higher than) the average MOE value for the range of action alternatives.
- **Yellow** – MOE value is better than (lower than) the average MOE value but less than the first-quartile MOE value for the range of alternatives.
- **Green** – MOE value is equal to or better than (lower than) the first-quartile MOE value for the range of alternatives.

Similarly, the left column of Table 5 indicates the results of the screening process.

- If the cell in the left column is **black**, the alternative was eliminated because at least one MOE value was worse than (higher than) the No-Action MOE values.
- If the cell in the left column is **red**, the alternative was eliminated because at least one MOE value was worse than (higher than) the average value for the action alternatives.
- If the cell in the left column is **yellow**, the alternative was eliminated because it did not have MOE values better than (less than) the first-quartile value for at least three of the five MOEs.
- If the cell in the left column is **green**, the alternative had MOE values better than (less than) the first-quartile value for at least three of the five MOEs and was advanced to Level 2 screening.

Based on the analysis from the Level 1 screening process, for the Shared Solution Alternative, four of the five MOE values were worse than average, and one was above average but not in the first quartile. Therefore, the MOEs showed that the Shared Solution Alternative would not substantially reduce delay and congestion in the WDC study area and did not pass the Level 1 screening criteria.

Table 5. Numerical Results from Level 1 Screening

Alternative	Daily Total Delay (hr)	North-South Road Lane-Miles with V/C ≥ 0.9	East-West Road Lane-Miles with V/C ≥ 0.9	Vehicle-Miles Traveled (VMT) with V/C ≥ 0.9	Vehicle-Hours Traveled (VHT) with V/C ≥ 0.9
No-Action	18,310	116.2	30.5	642,000	20,770
TSM/TDM	17,290	110.0	22.8	614,700	19,180
01 (old 1b)	17,880	116.2	30.0	639,300	20,510
02 (old 1c)	17,320	112.6	30.5	628,300	19,860
03 Shared Solution	16,590	111.0	20.7	597,100	17,610
04	16,290	116.8	16.5	609,400	18,520
05	13,320	93.4	16.0	494,000	14,470
06	17,000	103.5	27.7	601,800	18,700
07	14,230	77.6	29.0	458,900	14,910
08	12,390	77.3	15.4	429,400	12,660
09A-S	13,280	86.0	21.2	492,700	14,580
09A-G	12,860	75.4	19.8	430,500	13,200
09B-S	17,070	122.2	26.9	643,500	19,720
09B-G	16,850	127.8	26.1	661,900	19,970
09C-S	15,740	106.5	23.3	588,900	17,420
09C-G	15,040	105.5	22.9	580,000	16,890
10A-S	12,480	79.8	17.9	447,700	13,300
10A-G	12,030	73.6	18.4	417,500	12,580
10A-D	12,180	74.1	18.6	423,400	12,750
10B-S	16,460	126.0	23.1	655,600	19,880
10B-G	15,990	123.6	22.1	637,200	19,230
10B-D	16,100	124.9	23.2	642,000	19,350
10C-S	15,290	108.0	19.5	582,700	17,200
10C-G	14,820	106.1	19.3	567,700	16,620
10C-D	14,800	105.9	19.5	568,300	16,610
11A-S – WDC Draft EIS Alternative B	13,400	89.7	15.0	473,000	13,980
11A-G – WDC Draft EIS Alternative B	13,050	79.4	14.8	415,000	12,690
11A-D	13,010	79.4	14.8	415,100	12,730
11B-S	16,280	112.9	29.9	632,400	19,380
11B-G	15,810	114.3	28.8	631,600	19,060
11B-D	16,170	115.0	29.9	636,600	19,340
11C-S	15,960	112.0	23.3	608,200	18,220
11C-G	15,410	108.2	22.8	582,900	17,330
11C-D	15,360	108.7	22.9	589,100	17,330
12A-S	14,150	98.8	18.1	515,700	15,330
12A-G	13,860	90.0	17.4	464,200	14,120
12A-D	13,740	92.4	17.6	480,600	14,560

Table 5. Numerical Results from Level 1 Screening

Alternative	Daily Total Delay (hr)	North-South Road Lane-Miles with V/C ≥ 0.9	East-West Road Lane-Miles with V/C ≥ 0.9	Vehicle-Miles Traveled (VMT) with V/C ≥ 0.9	Vehicle-Hours Traveled (VHT) with V/C ≥ 0.9
No-Action	18,310	116.2	30.5	642,000	20,770
12B-S	16,720	116.5	29.4	639,900	19,790
12B-G	16,260	115.9	28.5	630,800	19,340
12B-D	16,370	118.9	29.6	645,600	19,660
12C-S	16,570	115.1	25.6	619,200	18,950
12C-G	16,050	113.5	25.7	606,100	18,300
12C-D	16,010	115.5	26.1	617,100	18,510
13A-S – WDC Draft EIS Alternative A	13,510	92.3	16.8	485,700	14,320
13A-G – WDC Draft EIS Alternative A	13,340	80.4	17.2	423,800	13,050
13A-D	13,230	82.3	17.2	434,500	13,430
13B-S	16,440	114.5	28.6	635,400	19,460
13B-G	15,950	113.7	27.6	625,500	18,940
13B-D	16,310	117.0	28.9	641,800	19,460
13C-S	16,280	113.2	25.0	615,600	18,660
13C-G	15,790	111.5	24.8	601,700	17,990
13C-D	15,650	109.3	25.1	593,100	17,730
Shared Solution Alternative	16,590	111.0	20.7	597,100	17,610
Average	15,240	104.0	22.9	563,700	17,080
% Reduction from No-Action	16.8%	10.5%	24.9%	12.2%	17.8%
1st Quartile	13,680	91.7	18.3	484,400	14,540
% Reduction from No-Action	25.3%	21.1%	40.0%	24.5%	30.0%
Legend					
xx,xxx	MOE value is higher than No-Action MOE value.				
xx,xxx	MOE value is higher than average of all alternatives.				
xx.x	MOE value is lower than average of all alternatives but not in 1st quartile.				
xx.x	MOE value is in 1st quartile of all alternatives.				
Alt. xxx	Alternative eliminated because at least one MOE value is higher than No-Action.				
Alt. xxx	Alternative eliminated because at least one MOE value is higher than average of all alternatives.				
Alt. xxx	Alternative eliminated because less than three of five MOE values are in the 1st quartile of all alternatives.				
Alt. xxx	Alternative advanced because the above rejection criteria were not met.				
V/C refers to volume to capacity, which is a measure of the actual traffic volume on a road compared to the traffic capacity for which the road was designed. A V/C ratio equal to or greater than 0.9 indicates heavy congestion.					
TSM/TDM refers to Transportation System Management/Transportation Demand Management.					
The designations S, G, and D refer to the southern connection that was modeled with the alternative: the Shepard Lane Option, Glovers Lane Option, or D&RGW Option, respectively.					

5.0 Process Summary for the Shared Solution Alternative

A formal request to develop the Shared Solution Alternative was received by UDOT on April 17, 2013 just before the WDC Draft EIS was approved on May 1, 2013 and released on May 24, 2013. The request included general concepts and didn't provide enough detail to evaluate the Shared Solution as an alternative in the EIS. Therefore, UDOT, in collaboration with the Coalition, undertook a process to develop the alternative to conduct an alternative evaluation at a similar level of detail as other WDC alternatives.

The Shared Solution Alternative was developed and evaluated based on a MOA signed by UDOT and the Coalition on May 15, 2014. The purposes of the MOA were to define the process that would be used to develop and evaluate the Shared Solution Alternative, agree on the criteria that would be used to develop and evaluate the alternative, and ensure that the stakeholders involved in the process understood the steps that would be followed.

5.1 Alternative Development

The Shared Solution Alternative was developed primarily by the Coalition. Assistance was provided by UDOT technical experts, UTA, WFRC, and local Cities and Counties in the WDC study area to help define and refine technical aspects of the alternative that were needed for modeling purposes.

The Shared Solution Alternative was developed between May 2014 and December 2014. As defined in the MOA, the alternative-development and evaluation process included holding a series of workshops with stakeholders to develop the Shared Solution Alternative and then analyzing the developed alternative to determine whether it would meet the purpose of the WDC project as defined in the Draft EIS.

Six stakeholder workshops and 18 technical meetings were held during this time. The technical meeting attendees included representatives from the Coalition and UDOT and technical experts including travel demand modelers, land-use specialists, and roadway designers. The stakeholder workshop attendees included the same groups as well as representatives from local governments (Cities and Counties) in the WDC study area, WFRC, UTA, and other interested stakeholders.

In December 2014, an initial Shared Solution Alternative was developed and presented at a stakeholder workshop. A map of the alternative was posted on the WDC public website.

5.2 Alternative Refinement

After the initial Shared Solution Alternative was developed in December 2014, the alternative went through a refinement process. The alternative-refinement process included a review of the Shared Solution Alternative's transportation investments and land uses by the Cities and Counties in the WDC study area, a review of the land uses by the Cities to determine whether the proposed Shared Solution Alternative land uses were reasonable, a market analysis of the alternative land uses, a review of transit investments by UTA, and additional refinement of the alternative by the Coalition.

As part of the Coalition's presentation to the above stakeholders, the Coalition presented the benefits of the Shared Solution Alternative so that these benefits could be considered when the Cities made their land-use decisions. During the alternative-refinement process for the Shared Solution Alternative,

15 individual city meetings and 12 technical meetings were held. The refinement process occurred between January 2015 and April 2016.

Based on stakeholder input during the alternative-refinement process, the Coalition updated the Shared Solution Alternative's transportation projects, land-use assumptions, transit assumptions, and modeling assumptions. The assumptions for the final Shared Solution Alternative are described in Appendix J, Final Shared Solution Alternative Assumptions and Map.

5.3 Alternative Evaluation

After the alternative-refinement process, UDOT performed Level 1 screening on the final Shared Solution Alternative using the same process as for the alternatives evaluated in the WDC Draft EIS released in April 2013. The Shared Solution Alternative was evaluated in the updated Level 1 screening process that was done for all of the WDC alternatives in 2016 using version 8.1 of the WFRC travel demand model. Based on the Level 1 screening process, the Shared Solution Alternative did not pass Level 1 screening. Because the alternative did not pass Level 1 screening and therefore would not meet the purpose of the WDC project, the Shared Solution Alternative was not carried forward for detailed evaluation in the EIS.